Figure 1

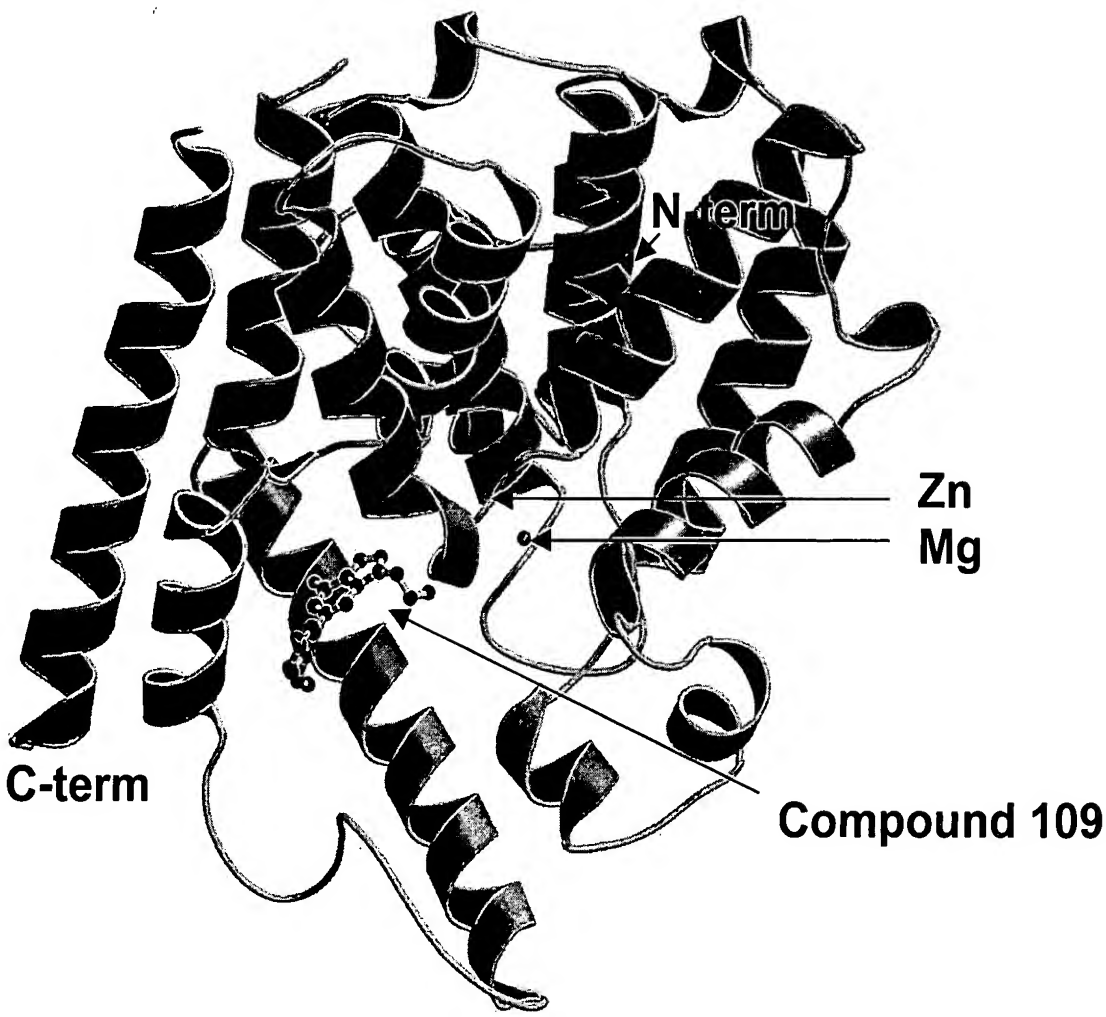


Figure 2

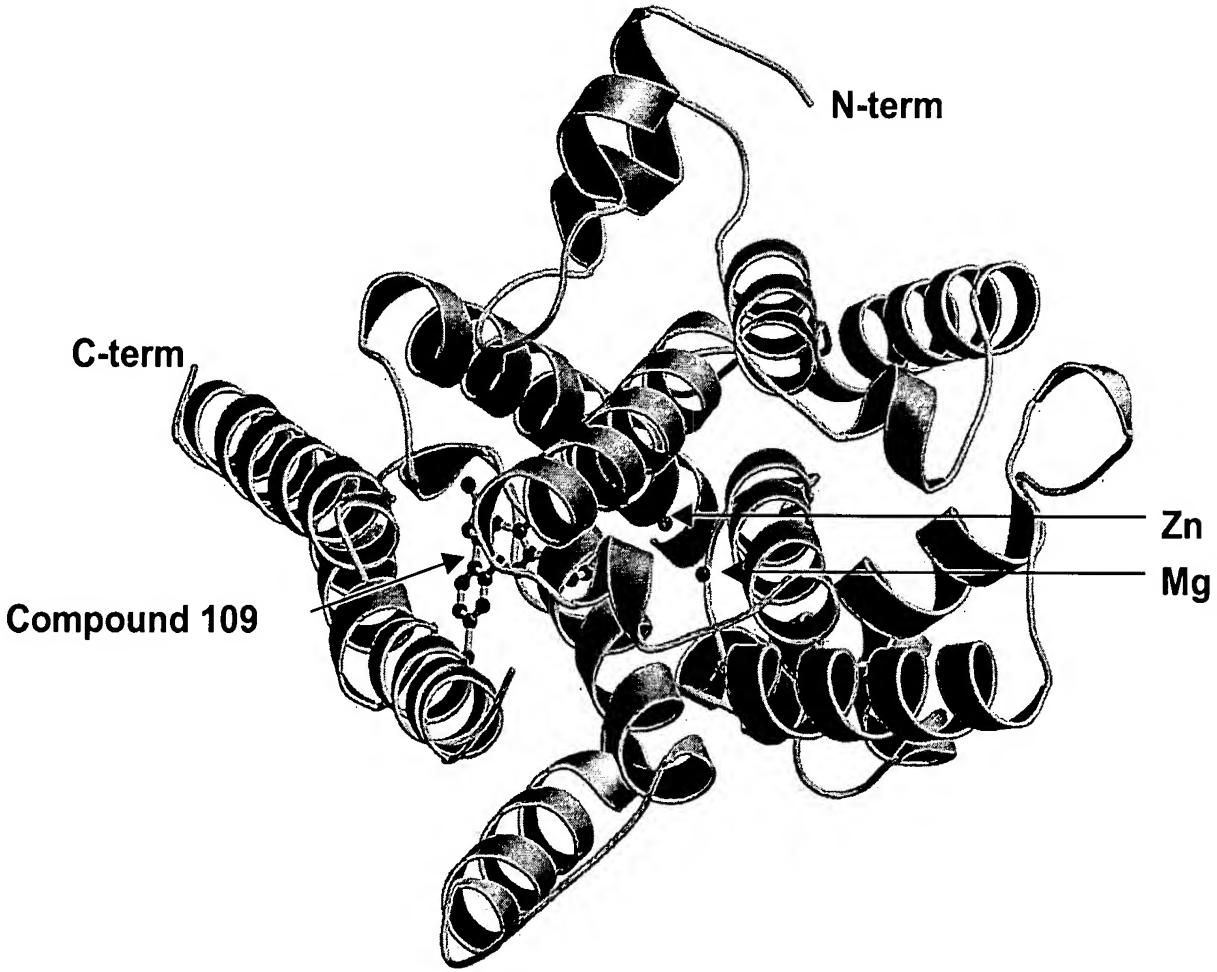
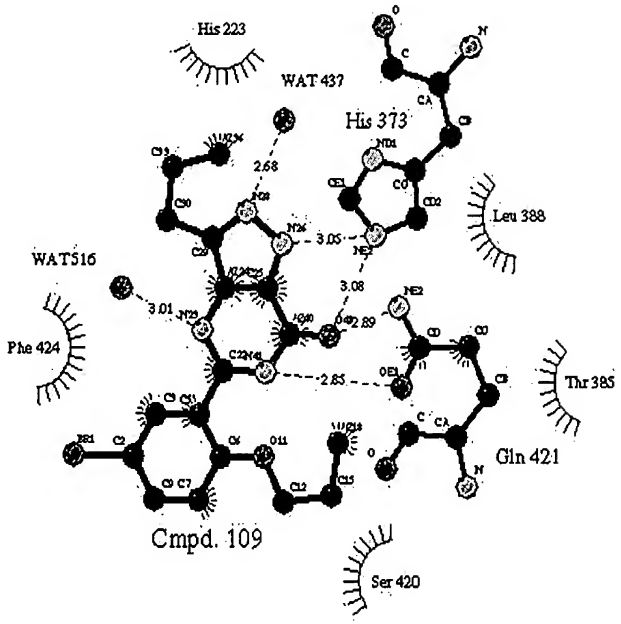


Figure 3



Key

Ligand bond

Non-ligand bond

Hydrogen bond and its length

Non-ligand residues involved in hydrophobic contact(s)

Corresponding atoms involved in hydrophobic contact(s)

FIGURE 4 - 1

```
HEADER    ----                    XX-XXX-XX    xxxx
COMPND    ---
REMARK    3
REMARK    3 REFINEMENT.
REMARK    3   PROGRAM      : REFMAC 5.0
REMARK    3   AUTHORS      : MURSHUDOV,VAGIN,DODSON
REMARK    3
REMARK    3    REFINEMENT TARGET : MAXIMUM LIKELIHOOD
REMARK    3
REMARK    3  DATA USED IN REFINEMENT.
REMARK    3   RESOLUTION RANGE HIGH (ANGSTROMS) :   2.10
REMARK    3   RESOLUTION RANGE LOW  (ANGSTROMS) :  20.00
REMARK    3   DATA CUTOFF            (SIGMA(F)) : NONE
REMARK    3   COMPLETENESS FOR RANGE        (%) :  97.71
REMARK    3   NUMBER OF REFLECTIONS             :   28188
REMARK    3
REMARK    3  FIT TO DATA USED IN REFINEMENT.
REMARK    3   CROSS-VALIDATION METHOD           : THROUGHOUT
REMARK    3   FREE R VALUE TEST SET SELECTION   : RANDOM
REMARK    3   R VALUE     (WORKING + TEST SET) : 0.21503
REMARK    3   R VALUE             (WORKING SET) :  0.21334
REMARK    3   FREE R VALUE                     :  0.23537
REMARK    3   FREE R VALUE TEST SET SIZE   (%) :  7.7
REMARK    3   FREE R VALUE TEST SET COUNT       :  2359
REMARK    3
REMARK    3  FIT IN THE HIGHEST RESOLUTION BIN.
REMARK    3   TOTAL NUMBER OF BINS USED           :      20
REMARK    3   BIN RESOLUTION RANGE HIGH          :   2.100
REMARK    3   BIN RESOLUTION RANGE LOW           :   2.154
REMARK    3   REFLECTION IN BIN     (WORKING SET) :    1979
REMARK    3   BIN R VALUE           (WORKING SET) :   0.242
REMARK    3   BIN FREE R VALUE SET COUNT          :     194
REMARK    3   BIN FREE R VALUE                    :   0.285
REMARK    3
REMARK    3  NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK    3   ALL ATOMS                 :     2724
REMARK    3
REMARK    3  B VALUES.
REMARK    3   FROM WILSON PLOT           (A**2) : NULL
REMARK    3   MEAN B VALUE      (OVERALL, A**2) :  28.472
REMARK    3   OVERALL ANISOTROPIC B VALUE.
REMARK    3    B11 (A**2) :     0.89
REMARK    3    B22 (A**2) :     0.89
REMARK    3    B33 (A**2) :    -1.79
REMARK    3    B12 (A**2) :     0.00
REMARK    3    B13 (A**2) :     0.00
REMARK    3    B23 (A**2) :     0.00
REMARK    3
REMARK    3  ESTIMATED OVERALL COORDINATE ERROR.
REMARK    3  ESU BASED ON R VALUE                            (A): 0.184
REMARK    3  ESU BASED ON FREE R VALUE                       (A): 0.159
REMARK    3  ESU BASED ON MAXIMUM LIKELIHOOD                 (A): 0.150
REMARK    3 ESU FOR B VALUES BASED ON MAXIMUM LIKELIHOOD (A**2): 5.493
REMARK    3
REMARK    3 CORRELATION COEFFICIENTS.
REMARK    3   CORRELATION COEFFICIENT FO-FC      :   0.943
REMARK    3   CORRELATION COEFFICIENT FO-FC FREE :   0.937
```

FIGURE 4 - 2

```
REMARK   3
REMARK   3  RMS DEVIATIONS FROM IDEAL VALUES  COUNT    RMS     WEIGHT
REMARK   3  BOND LENGTHS REFINED ATOMS    (A):  2684 ; 0.017 ; 0.021
REMARK   3  BOND LENGTHS OTHERS           (A):  2427 ; 0.001 ; 0.020
REMARK   3 BOND ANGLES REFINED ATOMS (DEGREES): 3643 ; 1.792 ; 1.940
REMARK   3  BOND ANGLES OTHERS       (DEGREES):  5651 ; 0.916 ; 3.000
REMARK   3  TORSION ANGLES, PERIOD 1 (DEGREES):  323 ; 4.382 ; 3.000
REMARK   3  TORSION ANGLES, PERIOD 3 (DEGREES):  488 ;16.960 ;15.000
REMARK   3  CHIRAL-CENTER RESTRAINTS   (A**3):   419 ; 0.116 ; 0.200
REMARK   3  GENERAL PLANES REFINED ATOMS  (A):  2919 ; 0.007 ; 0.020
REMARK   3  GENERAL PLANES OTHERS         (A):   552 ; 0.004 ; 0.020
REMARK   3 NON-BONDED CONTACTS REFINED ATOMS (A): 807 ; 0.275 ; 0.300
REMARK   3  NON-BONDED CONTACTS OTHERS    (A):  2526 ; 0.241 ; 0.300
REMARK   3  NON-BONDED TORSION OTHERS     (A):     4 ; 0.047 ; 0.500
REMARK   3  H-BOND (X...Y) REFINED ATOMS  (A):   138 ; 0.227 ; 0.500
REMARK   3  H-BOND (X...Y) OTHERS         (A):     5 ; 0.261 ; 0.500
REMARK   3  SYMMETRY VDW REFINED ATOMS    (A):     4 ; 0.186 ; 0.300
REMARK   3  SYMMETRY VDW OTHERS           (A):    30 ; 0.234 ; 0.300
REMARK   3  SYMMETRY H-BOND REFINED ATOMS (A):     7 ; 0.102 ; 0.500
REMARK   3
REMARK   3  ISOTROPIC THERMAL FACTOR RESTRAINTS COUNT   RMS   WEIGHT
REMARK   3 MAIN-CHAIN BOND REFINED ATOMS (A**2): 1610 ; 0.778 ; 1.500
REMARK   3 MAIN-CHAIN ANGLE REFINED ATOMS (A**2): 2614 ; 1.468 ; 2.000
REMARK   3 SIDE-CHAIN BOND REFINED ATOMS  (A**2): 1074 ; 2.298 ; 3.000
REMARK   3 SIDE-CHAIN ANGLE REFINED ATOMS (A**2): 1022 ; 3.649 ; 4.500
REMARK   3
REMARK   3  NCS RESTRAINTS STATISTICS
REMARK   3   NUMBER OF NCS GROUPS : NULL
REMARK   3
REMARK   3
REMARK   3  TLS DETAILS
REMARK   3   NUMBER OF TLS GROUPS  :    6
REMARK   3
REMARK   3   TLS GROUP :     1
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    A   148         A   270
REMARK   3    ORIGIN FOR THE GROUP (A):  16.0323  42.5286  49.2498
REMARK   3    T TENSOR
REMARK   3      T11:   0.1358 T22:   0.1292
REMARK   3      T33:   0.1299 T12:   0.0050
REMARK   3      T13:  -0.0244 T23:   0.0469
REMARK   3    L TENSOR
REMARK   3      L11:   0.6964 L22:   0.7134
REMARK   3      L33:   1.7615 L12:  -0.2522
REMARK   3      L13:  -0.0664 L23:  -0.2093
REMARK   3    S TENSOR
REMARK   3      S11:   0.0100 S12:   0.0651 S13:   0.0898
REMARK   3      S21:  -0.0635 S22:   0.0159 S23:   0.0636
REMARK   3      S31:  -0.1920 S32:  -0.2744 S33:  -0.0259
REMARK   3
REMARK   3   TLS GROUP :     2
REMARK   3    NUMBER OF COMPONENTS GROUP :    1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    A   271         A   337
REMARK   3    ORIGIN FOR THE GROUP (A):  24.6439  34.7675  62.6742
REMARK   3    T TENSOR
```

FIGURE 4 - 3

```
REMARK   3      T11:   0.0738 T22:   0.0756
REMARK   3      T33:   0.0945 T12:  -0.0237
REMARK   3      T13:  -0.0234 T23:   0.0384
REMARK   3    L TENSOR
REMARK   3      L11:   1.5316 L22:   1.3291
REMARK   3      L33:   1.7385 L12:  -0.7017
REMARK   3      L13:   0.2339 L23:  -0.4901
REMARK   3    S TENSOR
REMARK   3      S11:   0.0038 S12:  -0.0494 S13:   0.0740
REMARK   3      S21:   0.0480 S22:   0.0211 S23:  -0.0403
REMARK   3      S31:  -0.0998 S32:  -0.0430 S33:  -0.0249
REMARK   3
REMARK   3   TLS GROUP :      3
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    A   338        A   502
REMARK   3    ORIGIN FOR THE GROUP (A):  18.4504  22.7189  44.2384
REMARK   3    T TENSOR
REMARK   3      T11:   0.2074 T22:   0.1262
REMARK   3      T33:   0.1587 T12:  -0.0417
REMARK   3      T13:  -0.0244 T23:   0.0145
REMARK   3    L TENSOR
REMARK   3      L11:   1.7414 L22:   1.4201
REMARK   3      L33:   2.2230 L12:   0.1301
REMARK   3      L13:  -0.0607 L23:   0.0203
REMARK   3    S TENSOR
REMARK   3      S11:  -0.0252 S12:   0.1294 S13:  -0.2027
REMARK   3      S21:  -0.1646 S22:  -0.0081 S23:   0.0554
REMARK   3      S31:   0.2731 S32:  -0.1371 S33:   0.0334
REMARK   3
REMARK   3   TLS GROUP :      4
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    Z   999        Z   999
REMARK   3    ORIGIN FOR THE GROUP (A):  25.6752  22.9182  43.5896
REMARK   3    T TENSOR
REMARK   3      T11:   0.1603 T22:   0.1759
REMARK   3      T33:   0.1269 T12:  -0.0012
REMARK   3      T13:  -0.0075 T23:   0.0129
REMARK   3    L TENSOR
REMARK   3      L11:   8.2769 L22:  51.8896
REMARK   3      L33:  11.7300 L12: -10.6101
REMARK   3      L13:  -4.2747 L23:  22.1771
REMARK   3    S TENSOR
REMARK   3      S11:   0.1836 S12:   0.1336 S13:  -0.1531
REMARK   3      S21:  -0.1208 S22:   0.2127 S23:  -0.4433
REMARK   3      S31:   1.3771 S32:   0.1790 S33:  -0.3963
REMARK   3
REMARK   3   TLS GROUP :      5
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI   TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    X   504        X   504
REMARK   3    ORIGIN FOR THE GROUP (A):  25.0120  29.8840  52.7823
REMARK   3    T TENSOR
REMARK   3      T11:   0.2539 T22:   0.0830
REMARK   3      T33:   0.4695 T12:  -0.1325
REMARK   3      T13:  -0.2079 T23:   0.1731
```

FIGURE 4 - 4

```
REMARK   3    L TENSOR
REMARK   3      L11:    0.0000 L22:    0.0000
REMARK   3      L33:    0.0000 L12:    0.0000
REMARK   3      L13:    0.0000 L23:    0.0000
REMARK   3    S TENSOR
REMARK   3      S11:    0.0000 S12:    0.0000 S13:    0.0000
REMARK   3      S21:    0.0000 S22:    0.0000 S23:    0.0000
REMARK   3      S31:    0.0000 S32:    0.0000 S33:    0.0000
REMARK   3
REMARK   3   TLS GROUP :      6
REMARK   3    NUMBER OF COMPONENTS GROUP :     1
REMARK   3    COMPONENTS         C SSSEQI    TO  C SSSEQI
REMARK   3    RESIDUE RANGE :    Y   503         Y   503
REMARK   3    ORIGIN FOR THE GROUP (A):  22.8600  31.1800  49.8422
REMARK   3    T TENSOR
REMARK   3      T11:    0.2048 T22:    0.2327
REMARK   3      T33:    0.1923 T12:   -0.0454
REMARK   3      T13:   -0.0244 T23:    0.0575
REMARK   3    L TENSOR
REMARK   3      L11:    0.0000 L22:    0.0000
REMARK   3      L33:    0.0000 L12:    0.0000
REMARK   3      L13:    0.0000 L23:    0.0000
REMARK   3    S TENSOR
REMARK   3      S11:    0.0000 S12:    0.0000 S13:    0.0000
REMARK   3      S21:    0.0000 S22:    0.0000 S23:    0.0000
REMARK   3      S31:    0.0000 S32:    0.0000 S33:    0.0000
REMARK   3
REMARK   3
REMARK   3  BULK SOLVENT MODELLING.
REMARK   3   METHOD USED : BABINET MODEL WITH MASK
REMARK   3   PARAMETERS FOR MASK CALCULATION
REMARK   3   VDW PROBE RADIUS    :   1.40
REMARK   3   ION PROBE RADIUS    :   0.80
REMARK   3   SHRINKAGE RADIUS    :   0.80
REMARK   3
REMARK   3  OTHER REFINEMENT REMARKS:
REMARK   3  HYDROGENS HAVE BEEN ADDED IN THE RIDING POSITIONS
REMARK   3
LINK              VAL A 444                     VAL A 479     gap
CRYST1   87.466   87.466  135.029  90.00  90.00  90.00 P 43 21 2
SCALE1      0.011433  0.000000  0.000000        0.00000
SCALE2      0.000000  0.011433  0.000000        0.00000
SCALE3      0.000000  0.000000  0.007406        0.00000
ATOM      1  N   PRO A 148      12.524  56.486  42.915  1.00 50.69
ATOM      2  CA  PRO A 148      13.180  56.901  44.191  1.00 50.33
ATOM      3  CB  PRO A 148      12.813  55.756  45.123  1.00 50.86
ATOM      4  CG  PRO A 148      11.304  55.464  44.657  1.00 51.22
ATOM      5  CD  PRO A 148      11.249  55.793  43.173  1.00 51.00
ATOM      6  C   PRO A 148      14.682  57.145  43.964  1.00 49.20
ATOM      7  O   PRO A 148      15.582  57.030  44.818  1.00 49.11
ATOM      8  N   THR A 149      14.875  57.461  42.687  1.00 47.11
ATOM      9  CA  THR A 149      16.080  57.942  42.036  1.00 45.46
ATOM     10  CB  THR A 149      17.347  58.043  42.905  1.00 45.61
ATOM     11  OG1 THR A 149      17.358  57.021  43.917  1.00 46.20
ATOM     12  CG2 THR A 149      17.376  59.354  43.674  1.00 46.36
ATOM     13  C   THR A 149      16.155  56.823  41.060  1.00 42.66
ATOM     14  O   THR A 149      16.941  56.843  40.111  1.00 44.17
```

FIGURE 4 - 5

```
ATOM     15  N   TYR A 150      15.294  55.842  41.319  1.00 38.52
ATOM     16  CA  TYR A 150      15.136  54.726  40.427  1.00 35.29
ATOM     17  CB  TYR A 150      13.810  54.029  40.640  1.00 35.11
ATOM     18  CG  TYR A 150      13.695  53.321  41.948  1.00 35.33
ATOM     19  CD1 TYR A 150      12.453  53.087  42.497  1.00 35.27
ATOM     20  CE1 TYR A 150      12.312  52.472  43.683  1.00 37.07
ATOM     21  CZ  TYR A 150      13.417  52.077  44.380  1.00 36.07
ATOM     22  OH  TYR A 150      13.191  51.451  45.578  1.00 38.09
ATOM     23  CE2 TYR A 150      14.681  52.300  43.871  1.00 35.87
ATOM     24  CD2 TYR A 150      14.810  52.924  42.650  1.00 34.24
ATOM     25  C   TYR A 150      15.110  55.284  39.054  1.00 31.61
ATOM     26  O   TYR A 150      14.270  56.069  38.713  1.00 30.04
ATOM     27  N   SER A 151      16.071  54.864  38.283  1.00 28.42
ATOM     28  CA  SER A 151      16.122  55.176  36.897  1.00 27.09
ATOM     29  CB  SER A 151      17.434  54.619  36.390  1.00 27.06
ATOM     30  OG  SER A 151      17.395  53.210  36.524  1.00 25.27
ATOM     31  C   SER A 151      14.967  54.444  36.189  1.00 24.84
ATOM     32  O   SER A 151      14.290  53.595  36.761  1.00 21.60
ATOM     33  N   THR A 152      14.770  54.764  34.928  1.00 24.00
ATOM     34  CA  THR A 152      13.776  54.047  34.150  1.00 23.98
ATOM     35  CB  THR A 152      13.662  54.636  32.765  1.00 23.76
ATOM     36  OG1 THR A 152      14.974  54.775  32.188  1.00 21.23
ATOM     37  CG2 THR A 152      13.102  56.061  32.857  1.00 24.51
ATOM     38  C   THR A 152      14.153  52.574  34.034  1.00 24.15
ATOM     39  O   THR A 152      13.256  51.715  34.009  1.00 23.35
ATOM     40  N   ALA A 153      15.458  52.273  33.976  1.00 24.16
ATOM     41  CA  ALA A 153      15.880  50.871  33.903  1.00 24.96
ATOM     42  CB  ALA A 153      17.387  50.741  33.638  1.00 25.26
ATOM     43  C   ALA A 153      15.472  50.176  35.212  1.00 25.47
ATOM     44  O   ALA A 153      14.887  49.078  35.188  1.00 24.28
ATOM     45  N   VAL A 154      15.687  50.810  36.360  1.00 26.41
ATOM     46  CA  VAL A 154      15.251  50.089  37.554  1.00 27.66
ATOM     47  CB  VAL A 154      15.999  50.359  38.896  1.00 28.92
ATOM     48  CG1 VAL A 154      17.332  51.100  38.738  1.00 28.93
ATOM     49  CG2 VAL A 154      15.038  50.837  40.024  1.00 29.03
ATOM     50  C   VAL A 154      13.743  49.966  37.713  1.00 28.12
ATOM     51  O   VAL A 154      13.269  48.893  38.121  1.00 28.56
ATOM     52  N   LEU A 155      12.995  51.006  37.374  1.00 28.89
ATOM     53  CA  LEU A 155      11.548  50.917  37.378  1.00 30.17
ATOM     54  CB  LEU A 155      10.875  52.195  36.855  1.00 30.33
ATOM     55  CG  LEU A 155      10.889  53.449  37.759  1.00 32.39
ATOM     56  CD1 LEU A 155      10.010  54.534  37.180  1.00 32.40
ATOM     57  CD2 LEU A 155      10.472  53.167  39.196  1.00 32.71
ATOM     58  C   LEU A 155      11.132  49.734  36.498  1.00 30.93
ATOM     59  O   LEU A 155      10.302  48.931  36.909  1.00 30.41
ATOM     60  N   ASN A 156      11.721  49.604  35.306  1.00 31.26
ATOM     61  CA  ASN A 156      11.307  48.517  34.427  1.00 32.34
ATOM     62  CB  ASN A 156      11.985  48.567  33.058  1.00 32.86
ATOM     63  CG  ASN A 156      11.385  47.543  32.089  1.00 36.73
ATOM     64  OD1 ASN A 156      10.382  46.881  32.401  1.00 41.40
ATOM     65  ND2 ASN A 156      11.982  47.411  30.922  1.00 39.03
ATOM     66  C   ASN A 156      11.505  47.146  35.071  1.00 32.05
ATOM     67  O   ASN A 156      10.717  46.244  34.839  1.00 31.86
ATOM     68  N   CYS A 157      12.522  46.992  35.911  1.00 31.91
ATOM     69  CA  CYS A 157      12.731  45.708  36.597  1.00 32.24
ATOM     70  CB  CYS A 157      14.191  45.530  37.027  1.00 31.84
ATOM     71  SG  CYS A 157      15.344  45.440  35.664  1.00 34.69
```

FIGURE 4 - 6

```
ATOM     72  C   CYS A 157      11.832  45.517  37.819  1.00 31.82
ATOM     73  O   CYS A 157      11.242  44.455  38.009  1.00 32.48
ATOM     74  N   LEU A 158      11.691  46.552  38.625  1.00 31.06
ATOM     75  CA  LEU A 158      10.932  46.452  39.846  1.00 31.07
ATOM     76  CB  LEU A 158      11.059  47.739  40.658  1.00 31.13
ATOM     77  CG  LEU A 158      12.444  48.041  41.201  1.00 32.29
ATOM     78  CD1 LEU A 158      12.351  49.121  42.231  1.00 33.84
ATOM     79  CD2 LEU A 158      13.086  46.788  41.781  1.00 34.06
ATOM     80  C   LEU A 158       9.454  46.143  39.635  1.00 31.24
ATOM     81  O   LEU A 158       8.719  45.802  40.565  1.00 29.81
ATOM     82  N   LYS A 159       8.970  46.238  38.421  1.00 31.41
ATOM     83  CA  LYS A 159       7.545  46.016  38.328  1.00 31.50
ATOM     84  CB  LYS A 159       6.934  46.934  37.295  1.00 32.14
ATOM     85  CG  LYS A 159       7.222  46.557  35.904  1.00 33.11
ATOM     86  CD  LYS A 159       6.856  47.772  35.063  1.00 34.32
ATOM     87  CE  LYS A 159       6.576  47.425  33.649  1.00 34.36
ATOM     88  NZ  LYS A 159       5.816  48.503  32.886  1.00 31.80
ATOM     89  C   LYS A 159       7.268  44.542  38.071  1.00 30.04
ATOM     90  O   LYS A 159       6.139  44.146  37.914  1.00 29.50
ATOM     91  N   ASN A 160       8.334  43.750  38.057  1.00 29.69
ATOM     92  CA  ASN A 160       8.248  42.318  37.905  1.00 29.42
ATOM     93  CB  ASN A 160       9.166  41.864  36.779  1.00 29.58
ATOM     94  CG  ASN A 160       8.744  42.403  35.418  1.00 31.61
ATOM     95  OD1 ASN A 160       9.583  42.846  34.628  1.00 34.78
ATOM     96  ND2 ASN A 160       7.453  42.353  35.134  1.00 28.45
ATOM     97  C   ASN A 160       8.713  41.683  39.198  1.00 29.06
ATOM     98  O   ASN A 160       8.936  40.492  39.265  1.00 28.40
ATOM     99  N   LEU A 161       8.859  42.501  40.229  1.00 28.93
ATOM    100  CA  LEU A 161       9.397  42.034  41.494  1.00 29.38
ATOM    101  CB  LEU A 161       9.625  43.210  42.402  1.00 29.08
ATOM    102  CG  LEU A 161      10.389  42.897  43.672  1.00 31.27
ATOM    103  CD1 LEU A 161      11.861  42.631  43.379  1.00 31.86
ATOM    104  CD2 LEU A 161      10.239  44.083  44.593  1.00 31.51
ATOM    105  C   LEU A 161       8.507  41.013  42.184  1.00 28.95
ATOM    106  O   LEU A 161       8.995  40.243  42.982  1.00 27.46
ATOM    107  N   ASP A 162       7.203  41.017  41.889  1.00 28.26
ATOM    108  CA  ASP A 162       6.297  40.009  42.430  1.00 28.45
ATOM    109  CB  ASP A 162       4.849  40.509  42.505  1.00 28.51
ATOM    110  CG  ASP A 162       4.681  41.658  43.447  1.00 29.91
ATOM    111  OD1 ASP A 162       5.661  41.987  44.163  1.00 30.57
ATOM    112  OD2 ASP A 162       3.613  42.309  43.515  1.00 30.72
ATOM    113  C   ASP A 162       6.287  38.717  41.606  1.00 28.62
ATOM    114  O   ASP A 162       5.581  37.776  41.951  1.00 29.34
ATOM    115  N   LEU A 163       7.051  38.636  40.532  1.00 28.00
ATOM    116  CA  LEU A 163       6.937  37.472  39.662  1.00 28.36
ATOM    117  CB  LEU A 163       6.708  37.933  38.216  1.00 29.00
ATOM    118  CG  LEU A 163       5.592  38.955  38.016  1.00 29.76
ATOM    119  CD1 LEU A 163       5.639  39.470  36.583  1.00 32.31
ATOM    120  CD2 LEU A 163       4.245  38.314  38.320  1.00 31.94
ATOM    121  C   LEU A 163       8.142  36.553  39.682  1.00 28.08
ATOM    122  O   LEU A 163       9.264  36.986  39.925  1.00 27.05
ATOM    123  N   TRP A 164       7.893  35.283  39.409  1.00 27.30
ATOM    124  CA  TRP A 164       8.955  34.282  39.405  1.00 29.15
ATOM    125  CB  TRP A 164       8.368  32.876  39.226  1.00 29.29
ATOM    126  CG  TRP A 164       9.223  31.713  39.761  1.00 29.65
ATOM    127  CD1 TRP A 164       9.828  30.747  39.022  1.00 30.04
ATOM    128  NE1 TRP A 164      10.452  29.839  39.842  1.00 32.05
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FIGURE 4 - 7

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ATOM    129  CE2 TRP A 164      10.268  30.215  41.146  1.00 33.66
ATOM    130  CD2 TRP A 164       9.477  31.377  41.136  1.00 32.68
ATOM    131  CE3 TRP A 164       9.141  31.963  42.367  1.00 31.29
ATOM    132  CZ3 TRP A 164       9.583  31.368  43.543  1.00 31.32
ATOM    133  CH2 TRP A 164      10.347  30.205  43.519  1.00 31.46
ATOM    134  CZ2 TRP A 164      10.715  29.620  42.337  1.00 34.25
ATOM    135  C   TRP A 164       9.984  34.542  38.326  1.00 28.63
ATOM    136  O   TRP A 164      11.161  34.223  38.501  1.00 27.68
ATOM    137  N   CYS A 165       9.554  35.145  37.223  1.00 28.84
ATOM    138  CA  CYS A 165      10.461  35.390  36.119  1.00 29.66
ATOM    139  CB  CYS A 165       9.702  35.325  34.801  1.00 30.48
ATOM    140  SG  CYS A 165       8.260  36.365  34.858  1.00 35.99
ATOM    141  C   CYS A 165      11.219  36.710  36.246  1.00 28.86
ATOM    142  O   CYS A 165      11.889  37.112  35.317  1.00 28.19
ATOM    143  N   PHE A 166      11.128  37.377  37.396  1.00 28.22
ATOM    144  CA  PHE A 166      11.942  38.561  37.669  1.00 28.26
ATOM    145  CB  PHE A 166      11.783  38.942  39.144  1.00 28.28
ATOM    146  CG  PHE A 166      12.768  39.957  39.649  1.00 29.51
ATOM    147  CD1 PHE A 166      12.588  41.303  39.404  1.00 30.56
ATOM    148  CE1 PHE A 166      13.475  42.240  39.897  1.00 30.76
ATOM    149  CZ  PHE A 166      14.557  41.840  40.649  1.00 31.60
ATOM    150  CE2 PHE A 166      14.753  40.487  40.904  1.00 29.73
ATOM    151  CD2 PHE A 166      13.856  39.561  40.419  1.00 29.26
ATOM    152  C   PHE A 166      13.390  38.194  37.398  1.00 27.89
ATOM    153  O   PHE A 166      13.799  37.062  37.668  1.00 27.05
ATOM    154  N   ASP A 167      14.166  39.152  36.907  1.00 27.35
ATOM    155  CA  ASP A 167      15.555  38.912  36.564  1.00 27.91
ATOM    156  CB  ASP A 167      15.778  39.153  35.063  1.00 29.80
ATOM    157  CG  ASP A 167      17.170  38.796  34.624  1.00 31.42
ATOM    158  OD1 ASP A 167      18.103  38.884  35.453  1.00 32.96
ATOM    159  OD2 ASP A 167      17.413  38.411  33.464  1.00 35.53
ATOM    160  C   ASP A 167      16.467  39.777  37.403  1.00 27.30
ATOM    161  O   ASP A 167      16.682  40.970  37.141  1.00 26.25
ATOM    162  N   VAL A 168      17.026  39.158  38.434  1.00 25.95
ATOM    163  CA  VAL A 168      17.854  39.897  39.348  1.00 25.71
ATOM    164  CB  VAL A 168      18.211  39.051  40.567  1.00 25.35
ATOM    165  CG1 VAL A 168      19.152  37.944  40.180  1.00 25.70
ATOM    166  CG2 VAL A 168      18.793  39.932  41.652  1.00 25.79
ATOM    167  C   VAL A 168      19.126  40.400  38.687  1.00 25.17
ATOM    168  O   VAL A 168      19.671  41.383  39.118  1.00 24.87
ATOM    169  N   PHE A 169      19.621  39.720  37.663  1.00 25.84
ATOM    170  CA  PHE A 169      20.793  40.226  36.936  1.00 26.58
ATOM    171  CB  PHE A 169      21.303  39.145  35.977  1.00 27.19
ATOM    172  CG  PHE A 169      21.871  37.911  36.689  1.00 27.28
ATOM    173  CD1 PHE A 169      23.018  38.016  37.464  1.00 28.48
ATOM    174  CE1 PHE A 169      23.561  36.906  38.103  1.00 28.97
ATOM    175  CZ  PHE A 169      22.939  35.682  38.009  1.00 29.08
ATOM    176  CE2 PHE A 169      21.794  35.552  37.261  1.00 28.16
ATOM    177  CD2 PHE A 169      21.260  36.662  36.594  1.00 29.73
ATOM    178  C   PHE A 169      20.516  41.579  36.218  1.00 26.50
ATOM    179  O   PHE A 169      21.311  42.518  36.316  1.00 26.15
ATOM    180  N   SER A 170      19.395  41.700  35.509  1.00 26.92
ATOM    181  CA  SER A 170      19.052  42.977  34.866  1.00 27.24
ATOM    182  CB  SER A 170      17.778  42.880  34.038  1.00 27.33
ATOM    183  OG  SER A 170      17.698  41.590  33.485  1.00 31.94
ATOM    184  C   SER A 170      18.872  44.081  35.889  1.00 26.56
ATOM    185  O   SER A 170      19.357  45.176  35.688  1.00 25.40
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FIGURE 4 - 8

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ATOM    186  N   LEU A 171      18.210  43.788  37.006  1.00 26.72
ATOM    187  CA  LEU A 171      18.053  44.804  38.041  1.00 26.87
ATOM    188  CB  LEU A 171      17.239  44.262  39.199  1.00 26.89
ATOM    189  CG  LEU A 171      16.829  45.204  40.336  1.00 28.33
ATOM    190  CD1 LEU A 171      17.772  45.133  41.464  1.00 28.86
ATOM    191  CD2 LEU A 171      16.603  46.662  39.916  1.00 27.68
ATOM    192  C   LEU A 171      19.411  45.257  38.551  1.00 27.21
ATOM    193  O   LEU A 171      19.687  46.469  38.713  1.00 26.11
ATOM    194  N   ASN A 172      20.277  44.282  38.819  1.00 27.86
ATOM    195  CA  ASN A 172      21.591  44.603  39.354  1.00 27.87
ATOM    196  CB  ASN A 172      22.403  43.355  39.644  1.00 28.21
ATOM    197  CG  ASN A 172      23.692  43.678  40.384  1.00 27.80
ATOM    198  OD1 ASN A 172      23.669  44.255  41.491  1.00 30.36
ATOM    199  ND2 ASN A 172      24.819  43.353  39.772  1.00 25.62
ATOM    200  C   ASN A 172      22.377  45.478  38.395  1.00 27.64
ATOM    201  O   ASN A 172      23.062  46.378  38.827  1.00 28.10
ATOM    202  N   GLN A 173      22.321  45.170  37.106  1.00 28.61
ATOM    203  CA  GLN A 173      22.933  46.037  36.066  1.00 29.37
ATOM    204  CB  GLN A 173      22.773  45.425  34.666  1.00 29.73
ATOM    205  CG  GLN A 173      23.438  46.267  33.569  1.00 35.90
ATOM    206  CD  GLN A 173      22.975  45.932  32.138  1.00 40.38
ATOM    207  OE1 GLN A 173      22.286  44.926  31.896  1.00 47.63
ATOM    208  NE2 GLN A 173      23.332  46.798  31.198  1.00 44.57
ATOM    209  C   GLN A 173      22.279  47.428  36.104  1.00 28.41
ATOM    210  O   GLN A 173      22.956  48.441  36.133  1.00 27.68
ATOM    211  N   ALA A 174      20.952  47.471  36.148  1.00 28.49
ATOM    212  CA  ALA A 174      20.238  48.755  36.202  1.00 28.58
ATOM    213  CB  ALA A 174      18.744  48.503  36.125  1.00 29.21
ATOM    214  C   ALA A 174      20.558  49.542  37.466  1.00 28.59
ATOM    215  O   ALA A 174      20.725  50.741  37.427  1.00 27.57
ATOM    216  N   ALA A 175      20.677  48.856  38.599  1.00 28.67
ATOM    217  CA  ALA A 175      20.977  49.529  39.854  1.00 29.11
ATOM    218  CB  ALA A 175      20.383  48.720  41.021  1.00 29.35
ATOM    219  C   ALA A 175      22.492  49.761  40.091  1.00 30.16
ATOM    220  O   ALA A 175      22.906  49.956  41.232  1.00 29.81
ATOM    221  N   ASP A 176      23.329  49.648  39.059  1.00 30.63
ATOM    222  CA  ASP A 176      24.765  49.924  39.235  1.00 32.09
ATOM    223  CB  ASP A 176      24.970  51.410  39.584  1.00 32.71
ATOM    224  CG  ASP A 176      26.444  51.874  39.480  1.00 36.29
ATOM    225  OD1 ASP A 176      27.309  51.186  38.870  1.00 39.23
ATOM    226  OD2 ASP A 176      26.824  52.944  40.008  1.00 38.63
ATOM    227  C   ASP A 176      25.385  49.030  40.305  1.00 32.10
ATOM    228  O   ASP A 176      26.163  49.475  41.128  1.00 32.05
ATOM    229  N   ASP A 177      24.995  47.765  40.291  1.00 32.40
ATOM    230  CA  ASP A 177      25.557  46.765  41.162  1.00 32.57
ATOM    231  CB  ASP A 177      27.094  46.811  41.022  1.00 33.86
ATOM    232  CG  ASP A 177      27.761  45.459  41.244  1.00 37.30
ATOM    233  OD1 ASP A 177      27.217  44.388  40.870  1.00 38.62
ATOM    234  OD2 ASP A 177      28.871  45.386  41.812  1.00 42.64
ATOM    235  C   ASP A 177      25.056  46.939  42.616  1.00 31.44
ATOM    236  O   ASP A 177      25.767  46.616  43.567  1.00 31.53
ATOM    237  N   HIS A 178      23.808  47.393  42.768  1.00 28.97
ATOM    238  CA  HIS A 178      23.195  47.592  44.074  1.00 28.37
ATOM    239  CB  HIS A 178      23.015  49.102  44.333  1.00 28.28
ATOM    240  CG  HIS A 178      24.300  49.811  44.540  1.00 29.60
ATOM    241  ND1 HIS A 178      25.140  49.514  45.597  1.00 29.17
ATOM    242  CE1 HIS A 178      26.211  50.295  45.530  1.00 31.37
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FIGURE 4 - 9

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ATOM    243  NE2 HIS A 178      26.109  51.060  44.453  1.00 28.96
ATOM    244  CD2 HIS A 178      24.929  50.764  43.806  1.00 27.64
ATOM    245  C   HIS A 178      21.851  46.861  44.193  1.00 27.29
ATOM    246  O   HIS A 178      20.891  47.366  44.798  1.00 27.47
ATOM    247  N   ALA A 179      21.772  45.684  43.586  1.00 26.15
ATOM    248  CA  ALA A 179      20.587  44.843  43.653  1.00 25.58
ATOM    249  CB  ALA A 179      20.853  43.536  42.955  1.00 25.00
ATOM    250  C   ALA A 179      20.036  44.561  45.060  1.00 24.71
ATOM    251  O   ALA A 179      18.844  44.676  45.296  1.00 24.09
ATOM    252  N   LEU A 180      20.901  44.192  45.983  1.00 24.32
ATOM    253  CA  LEU A 180      20.463  43.811  47.334  1.00 24.85
ATOM    254  CB  LEU A 180      21.666  43.304  48.136  1.00 24.64
ATOM    255  CG  LEU A 180      21.345  42.761  49.556  1.00 25.31
ATOM    256  CD1 LEU A 180      20.277  41.701  49.485  1.00 24.05
ATOM    257  CD2 LEU A 180      22.623  42.211  50.157  1.00 23.35
ATOM    258  C   LEU A 180      19.789  44.948  48.096  1.00 24.69
ATOM    259  O   LEU A 180      18.695  44.834  48.613  1.00 23.82
ATOM    260  N   ARG A 181      20.485  46.054  48.175  1.00 26.41
ATOM    261  CA  ARG A 181      19.976  47.214  48.860  1.00 28.21
ATOM    262  CB  ARG A 181      21.046  48.288  48.808  1.00 29.54
ATOM    263  CG  ARG A 181      20.541  49.682  48.921  1.00 36.08
ATOM    264  CD  ARG A 181      21.329  50.672  48.115  1.00 41.60
ATOM    265  NE  ARG A 181      20.971  52.017  48.527  1.00 50.14
ATOM    266  CZ  ARG A 181      21.515  53.137  48.023  1.00 56.96
ATOM    267  NH1 ARG A 181      22.439  53.072  47.052  1.00 59.36
ATOM    268  NH2 ARG A 181      21.121  54.326  48.481  1.00 58.36
ATOM    269  C   ARG A 181      18.672  47.695  48.237  1.00 27.40
ATOM    270  O   ARG A 181      17.757  48.083  48.947  1.00 26.86
ATOM    271  N   THR A 182      18.567  47.623  46.911  1.00 27.24
ATOM    272  CA  THR A 182      17.358  48.089  46.213  1.00 26.74
ATOM    273  CB  THR A 182      17.558  48.098  44.672  1.00 26.91
ATOM    274  OG1 THR A 182      18.658  48.927  44.356  1.00 26.05
ATOM    275  CG2 THR A 182      16.369  48.751  43.960  1.00 27.56
ATOM    276  C   THR A 182      16.201  47.203  46.539  1.00 26.47
ATOM    277  O   THR A 182      15.138  47.660  46.951  1.00 25.70
ATOM    278  N   ILE A 183      16.401  45.904  46.365  1.00 26.57
ATOM    279  CA  ILE A 183      15.343  44.959  46.666  1.00 26.09
ATOM    280  CB  ILE A 183      15.792  43.538  46.214  1.00 27.18
ATOM    281  CG1 ILE A 183      15.761  43.499  44.688  1.00 28.98
ATOM    282  CD1 ILE A 183      15.969  42.175  44.054  1.00 31.84
ATOM    283  CG2 ILE A 183      14.937  42.493  46.819  1.00 26.50
ATOM    284  C   ILE A 183      14.906  44.983  48.126  1.00 25.78
ATOM    285  O   ILE A 183      13.704  44.955  48.420  1.00 24.75
ATOM    286  N   VAL A 184      15.855  45.035  49.055  1.00 24.98
ATOM    287  CA  VAL A 184      15.478  45.025  50.463  1.00 25.12
ATOM    288  CB  VAL A 184      16.680  44.867  51.394  1.00 24.60
ATOM    289  CG1 VAL A 184      16.252  44.990  52.824  1.00 25.61
ATOM    290  CG2 VAL A 184      17.366  43.490  51.161  1.00 25.65
ATOM    291  C   VAL A 184      14.686  46.253  50.846  1.00 25.65
ATOM    292  O   VAL A 184      13.638  46.169  51.474  1.00 24.69
ATOM    293  N   PHE A 185      15.178  47.414  50.465  1.00 26.98
ATOM    294  CA  PHE A 185      14.473  48.633  50.807  1.00 28.23
ATOM    295  CB  PHE A 185      15.263  49.816  50.278  1.00 29.37
ATOM    296  CG  PHE A 185      15.085  51.073  51.060  1.00 34.23
ATOM    297  CD1 PHE A 185      13.918  51.800  50.985  1.00 38.94
ATOM    298  CE1 PHE A 185      13.785  52.986  51.682  1.00 39.99
ATOM    299  CZ  PHE A 185      14.826  53.436  52.439  1.00 41.68
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FIGURE 4 - 10

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ATOM    300  CE2 PHE A 185      16.006  52.712  52.510  1.00 41.15
ATOM    301  CD2 PHE A 185      16.127  51.558  51.823  1.00 39.72
ATOM    302  C   PHE A 185      13.081  48.612  50.188  1.00 27.47
ATOM    303  O   PHE A 185      12.091  48.958  50.823  1.00 26.82
ATOM    304  N   GLU A 186      13.013  48.222  48.928  1.00 27.24
ATOM    305  CA  GLU A 186      11.738  48.220  48.237  1.00 27.91
ATOM    306  CB  GLU A 186      11.935  47.855  46.765  1.00 27.48
ATOM    307  CG  GLU A 186      10.654  47.731  45.987  1.00 28.29
ATOM    308  CD  GLU A 186       9.887  49.029  45.889  1.00 28.56
ATOM    309  OE1 GLU A 186      10.492  50.109  46.053  1.00 24.33
ATOM    310  OE2 GLU A 186       8.671  48.932  45.662  1.00 31.27
ATOM    311  C   GLU A 186      10.781  47.265  48.925  1.00 28.05
ATOM    312  O   GLU A 186       9.614  47.601  49.159  1.00 27.46
ATOM    313  N   LEU A 187      11.284  46.086  49.282  1.00 27.66
ATOM    314  CA  LEU A 187      10.433  45.088  49.919  1.00 27.76
ATOM    315  CB  LEU A 187      11.167  43.790  50.026  1.00 28.24
ATOM    316  CG  LEU A 187      10.812  42.697  49.031  1.00 29.69
ATOM    317  CD1 LEU A 187      10.224  43.141  47.771  1.00 29.84
ATOM    318  CD2 LEU A 187      11.962  41.703  48.782  1.00 29.82
ATOM    319  C   LEU A 187       9.920  45.497  51.285  1.00 27.51
ATOM    320  O   LEU A 187       8.745  45.281  51.589  1.00 26.71
ATOM    321  N   LEU A 188      10.807  46.036  52.114  1.00 26.73
ATOM    322  CA  LEU A 188      10.426  46.537  53.418  1.00 27.32
ATOM    323  CB  LEU A 188      11.646  46.963  54.210  1.00 26.81
ATOM    324  CG  LEU A 188      12.670  45.850  54.469  1.00 26.74
ATOM    325  CD1 LEU A 188      13.809  46.364  55.334  1.00 27.38
ATOM    326  CD2 LEU A 188      12.007  44.682  55.108  1.00 24.40
ATOM    327  C   LEU A 188       9.422  47.718  53.234  1.00 28.26
ATOM    328  O   LEU A 188       8.466  47.883  54.009  1.00 27.83
ATOM    329  N   THR A 189       9.621  48.511  52.191  1.00 28.83
ATOM    330  CA  THR A 189       8.644  49.558  51.870  1.00 29.72
ATOM    331  CB  THR A 189       9.198  50.459  50.793  1.00 29.84
ATOM    332  OG1 THR A 189      10.358  51.136  51.295  1.00 29.38
ATOM    333  CG2 THR A 189       8.205  51.581  50.407  1.00 30.08
ATOM    334  C   THR A 189       7.289  48.950  51.431  1.00 30.15
ATOM    335  O   THR A 189       6.262  49.279  51.988  1.00 30.59
ATOM    336  N   ARG A 190       7.274  48.035  50.475  1.00 30.89
ATOM    337  CA  ARG A 190       5.991  47.536  49.988  1.00 31.88
ATOM    338  CB  ARG A 190       6.163  46.635  48.799  1.00 32.18
ATOM    339  CG  ARG A 190       6.636  47.319  47.570  1.00 35.14
ATOM    340  CD  ARG A 190       6.774  46.341  46.437  1.00 36.85
ATOM    341  NE  ARG A 190       7.259  46.939  45.212  1.00 39.11
ATOM    342  CZ  ARG A 190       7.177  46.337  44.042  1.00 39.23
ATOM    343  NH1 ARG A 190       6.637  45.133  43.956  1.00 40.26
ATOM    344  NH2 ARG A 190       7.638  46.930  42.964  1.00 39.85
ATOM    345  C   ARG A 190       5.184  46.771  51.016  1.00 32.12
ATOM    346  O   ARG A 190       3.948  46.685  50.902  1.00 31.60
ATOM    347  N   HIS A 191       5.858  46.176  51.995  1.00 31.91
ATOM    348  CA  HIS A 191       5.140  45.441  53.026  1.00 32.16
ATOM    349  CB  HIS A 191       5.911  44.192  53.420  1.00 32.33
ATOM    350  CG  HIS A 191       5.883  43.114  52.379  1.00 33.14
ATOM    351  ND1 HIS A 191       4.748  42.388  52.092  1.00 34.79
ATOM    352  CE1 HIS A 191       5.018  41.498  51.155  1.00 34.11
ATOM    353  NE2 HIS A 191       6.290  41.624  50.814  1.00 32.74
ATOM    354  CD2 HIS A 191       6.853  42.630  51.562  1.00 33.66
ATOM    355  C   HIS A 191       4.861  46.335  54.225  1.00 32.26
ATOM    356  O   HIS A 191       4.353  45.884  55.241  1.00 32.48
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FIGURE 4 - 11

```
ATOM    357  N   ASN A 192       5.195  47.617  54.113  1.00 32.62
ATOM    358  CA  ASN A 192       4.908  48.567  55.183  1.00 32.96
ATOM    359  CB  ASN A 192       3.411  48.627  55.383  1.00 33.55
ATOM    360  CG  ASN A 192       2.712  49.187  54.176  1.00 37.83
ATOM    361  OD1 ASN A 192       3.051  50.287  53.711  1.00 42.97
ATOM    362  ND2 ASN A 192       1.761  48.421  53.617  1.00 41.81
ATOM    363  C   ASN A 192       5.605  48.233  56.512  1.00 32.40
ATOM    364  O   ASN A 192       5.103  48.544  57.587  1.00 31.85
ATOM    365  N   LEU A 193       6.782  47.629  56.418  1.00 30.98
ATOM    366  CA  LEU A 193       7.527  47.234  57.591  1.00 30.35
ATOM    367  CB  LEU A 193       8.395  46.019  57.265  1.00 30.48
ATOM    368  CG  LEU A 193       7.564  44.799  56.844  1.00 30.12
ATOM    369  CD1 LEU A 193       8.447  43.618  56.493  1.00 31.91
ATOM    370  CD2 LEU A 193       6.615  44.377  57.961  1.00 30.47
ATOM    371  C   LEU A 193       8.354  48.380  58.164  1.00 30.04
ATOM    372  O   LEU A 193       8.571  48.429  59.367  1.00 28.72
ATOM    373  N   ILE A 194       8.763  49.336  57.328  1.00 29.85
ATOM    374  CA  ILE A 194       9.529  50.460  57.830  1.00 29.93
ATOM    375  CB  ILE A 194      10.061  51.330  56.658  1.00 30.62
ATOM    376  CG1 ILE A 194      11.243  50.640  55.956  1.00 31.17
ATOM    377  CD1 ILE A 194      11.625  51.251  54.612  1.00 32.48
ATOM    378  CG2 ILE A 194      10.487  52.689  57.146  1.00 30.94
ATOM    379  C   ILE A 194       8.645  51.257  58.830  1.00 29.72
ATOM    380  O   ILE A 194       9.054  51.591  59.948  1.00 27.94
ATOM    381  N   SER A 195       7.416  51.539  58.423  1.00 29.45
ATOM    382  CA  SER A 195       6.512  52.274  59.283  1.00 29.17
ATOM    383  CB  SER A 195       5.257  52.663  58.515  1.00 29.49
ATOM    384  OG  SER A 195       5.617  53.629  57.565  1.00 32.19
ATOM    385  C   SER A 195       6.129  51.464  60.481  1.00 27.98
ATOM    386  O   SER A 195       6.217  51.925  61.599  1.00 26.74
ATOM    387  N   ARG A 196       5.684  50.248  60.233  1.00 28.09
ATOM    388  CA  ARG A 196       5.260  49.377  61.313  1.00 28.51
ATOM    389  CB  ARG A 196       4.979  47.974  60.765  1.00 28.17
ATOM    390  CG  ARG A 196       4.788  46.897  61.845  1.00 30.35
ATOM    391  CD  ARG A 196       3.537  47.099  62.752  1.00 30.58
ATOM    392  NE  ARG A 196       3.493  46.112  63.817  1.00 32.07
ATOM    393  CZ  ARG A 196       4.164  46.219  64.957  1.00 34.21
ATOM    394  NH1 ARG A 196       4.917  47.292  65.190  1.00 34.65
ATOM    395  NH2 ARG A 196       4.085  45.257  65.872  1.00 33.37
ATOM    396  C   ARG A 196       6.310  49.327  62.441  1.00 28.58
ATOM    397  O   ARG A 196       5.976  49.462  63.621  1.00 29.34
ATOM    398  N   PHE A 197       7.583  49.194  62.086  1.00 27.81
ATOM    399  CA  PHE A 197       8.599  48.988  63.097  1.00 28.09
ATOM    400  CB  PHE A 197       9.460  47.763  62.754  1.00 28.50
ATOM    401  CG  PHE A 197       8.709  46.497  62.852  1.00 28.03
ATOM    402  CD1 PHE A 197       8.280  46.059  64.097  1.00 27.84
ATOM    403  CE1 PHE A 197       7.568  44.919  64.225  1.00 28.72
ATOM    404  CZ  PHE A 197       7.240  44.188  63.092  1.00 30.42
ATOM    405  CE2 PHE A 197       7.668  44.610  61.826  1.00 28.37
ATOM    406  CD2 PHE A 197       8.393  45.766  61.719  1.00 26.33
ATOM    407  C   PHE A 197       9.445  50.207  63.326  1.00 27.73
ATOM    408  O   PHE A 197      10.415  50.146  64.072  1.00 27.02
ATOM    409  N   LYS A 198       9.021  51.326  62.740  1.00 27.48
ATOM    410  CA  LYS A 198       9.735  52.581  62.889  1.00 27.69
ATOM    411  CB  LYS A 198       9.507  53.122  64.289  1.00 27.87
ATOM    412  CG  LYS A 198       8.045  53.406  64.560  1.00 30.56
ATOM    413  CD  LYS A 198       7.919  54.546  65.519  1.00 34.11
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FIGURE 4 - 12

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ATOM    414  CE  LYS A 198       6.465  54.806  65.891  1.00 37.50
ATOM    415  NZ  LYS A 198       5.615  55.168  64.715  1.00 36.91
ATOM    416  C   LYS A 198      11.217  52.432  62.641  1.00 27.29
ATOM    417  O   LYS A 198      12.054  52.877  63.432  1.00 26.60
ATOM    418  N   ILE A 199      11.545  51.788  61.536  1.00 27.22
ATOM    419  CA  ILE A 199      12.943  51.604  61.150  1.00 27.25
ATOM    420  CB  ILE A 199      13.029  50.563  60.058  1.00 26.82
ATOM    421  CG1 ILE A 199      12.477  49.237  60.548  1.00 27.24
ATOM    422  CD1 ILE A 199      12.346  48.247  59.470  1.00 28.11
ATOM    423  CG2 ILE A 199      14.478  50.379  59.599  1.00 27.57
ATOM    424  C   ILE A 199      13.453  52.911  60.608  1.00 27.29
ATOM    425  O   ILE A 199      12.967  53.359  59.586  1.00 27.74
ATOM    426  N   PRO A 200      14.427  53.546  61.237  1.00 27.69
ATOM    427  CA  PRO A 200      14.912  54.814  60.674  1.00 27.44
ATOM    428  CB  PRO A 200      15.983  55.251  61.663  1.00 27.80
ATOM    429  CG  PRO A 200      15.562  54.591  62.945  1.00 27.11
ATOM    430  CD  PRO A 200      15.140  53.199  62.473  1.00 27.35
ATOM    431  C   PRO A 200      15.499  54.536  59.330  1.00 27.59
ATOM    432  O   PRO A 200      16.330  53.635  59.164  1.00 27.25
ATOM    433  N   THR A 201      15.064  55.309  58.351  1.00 27.66
ATOM    434  CA  THR A 201      15.478  55.088  56.990  1.00 27.67
ATOM    435  CB  THR A 201      14.716  56.042  56.048  1.00 27.89
ATOM    436  OG1 THR A 201      13.315  55.764  56.151  1.00 30.79
ATOM    437  CG2 THR A 201      15.036  55.703  54.641  1.00 28.52
ATOM    438  C   THR A 201      16.970  55.239  56.802  1.00 26.95
ATOM    439  O   THR A 201      17.586  54.448  56.077  1.00 26.29
ATOM    440  N   VAL A 202      17.561  56.237  57.447  1.00 26.04
ATOM    441  CA  VAL A 202      19.011  56.438  57.325  1.00 26.21
ATOM    442  CB  VAL A 202      19.445  57.835  57.849  1.00 26.44
ATOM    443  CG1 VAL A 202      19.162  57.998  59.343  1.00 27.90
ATOM    444  CG2 VAL A 202      20.887  58.119  57.545  1.00 26.50
ATOM    445  C   VAL A 202      19.798  55.270  57.957  1.00 25.84
ATOM    446  O   VAL A 202      20.861  54.903  57.453  1.00 25.46
ATOM    447  N   PHE A 203      19.282  54.670  59.034  1.00 25.23
ATOM    448  CA  PHE A 203      19.940  53.486  59.599  1.00 25.21
ATOM    449  CB  PHE A 203      19.286  53.056  60.918  1.00 25.10
ATOM    450  CG  PHE A 203      19.566  53.958  62.107  1.00 25.64
ATOM    451  CD1 PHE A 203      20.257  55.151  61.975  1.00 25.84
ATOM    452  CE1 PHE A 203      20.506  55.962  63.090  1.00 26.76
ATOM    453  CZ  PHE A 203      20.063  55.591  64.332  1.00 25.86
ATOM    454  CE2 PHE A 203      19.395  54.375  64.490  1.00 26.99
ATOM    455  CD2 PHE A 203      19.148  53.572  63.379  1.00 24.96
ATOM    456  C   PHE A 203      19.852  52.314  58.585  1.00 25.15
ATOM    457  O   PHE A 203      20.817  51.597  58.346  1.00 25.39
ATOM    458  N   LEU A 204      18.696  52.138  57.972  1.00 25.66
ATOM    459  CA  LEU A 204      18.518  51.070  57.007  1.00 25.90
ATOM    460  CB  LEU A 204      17.044  50.951  56.584  1.00 25.56
ATOM    461  CG  LEU A 204      16.655  50.007  55.416  1.00 25.84
ATOM    462  CD1 LEU A 204      16.963  48.549  55.776  1.00 25.63
ATOM    463  CD2 LEU A 204      15.190  50.101  55.034  1.00 24.09
ATOM    464  C   LEU A 204      19.426  51.268  55.800  1.00 26.92
ATOM    465  O   LEU A 204      19.970  50.296  55.294  1.00 27.01
ATOM    466  N   MET A 205      19.609  52.503  55.319  1.00 27.86
ATOM    467  CA  MET A 205      20.483  52.699  54.163  1.00 28.52
ATOM    468  CB  MET A 205      20.325  54.092  53.512  1.00 29.52
ATOM    469  CG  MET A 205      18.919  54.471  53.019  1.00 32.80
ATOM    470  SD  MET A 205      18.847  56.162  52.172  1.00 44.56
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FIGURE 4 - 13

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ATOM    471  CE  MET A 205      19.468  57.285  53.466  1.00 41.32
ATOM    472  C   MET A 205      21.936  52.473  54.576  1.00 27.36
ATOM    473  O   MET A 205      22.735  51.912  53.825  1.00 26.71
ATOM    474  N   SER A 206      22.306  52.940  55.756  1.00 26.27
ATOM    475  CA  SER A 206      23.678  52.725  56.220  1.00 25.78
ATOM    476  CB  SER A 206      23.888  53.411  57.569  1.00 26.03
ATOM    477  OG  SER A 206      25.185  53.143  58.083  1.00 27.10
ATOM    478  C   SER A 206      23.926  51.208  56.339  1.00 25.09
ATOM    479  O   SER A 206      24.945  50.654  55.885  1.00 24.07
ATOM    480  N   PHE A 207      22.963  50.528  56.939  1.00 25.13
ATOM    481  CA  PHE A 207      23.087  49.092  57.161  1.00 24.65
ATOM    482  CB  PHE A 207      21.864  48.549  57.914  1.00 24.42
ATOM    483  CG  PHE A 207      21.798  47.042  57.951  1.00 23.73
ATOM    484  CD1 PHE A 207      22.584  46.333  58.833  1.00 23.73
ATOM    485  CE1 PHE A 207      22.554  44.947  58.866  1.00 24.42
ATOM    486  CZ  PHE A 207      21.713  44.258  58.022  1.00 24.41
ATOM    487  CE2 PHE A 207      20.912  44.962  57.140  1.00 24.62
ATOM    488  CD2 PHE A 207      20.985  46.337  57.083  1.00 25.19
ATOM    489  C   PHE A 207      23.217  48.358  55.834  1.00 24.33
ATOM    490  O   PHE A 207      24.058  47.489  55.684  1.00 23.55
ATOM    491  N   LEU A 208      22.364  48.700  54.885  1.00 24.48
ATOM    492  CA  LEU A 208      22.336  47.999  53.600  1.00 25.28
ATOM    493  CB  LEU A 208      21.096  48.380  52.783  1.00 25.02
ATOM    494  CG  LEU A 208      19.812  47.771  53.347  1.00 25.57
ATOM    495  CD1 LEU A 208      18.565  48.292  52.679  1.00 28.15
ATOM    496  CD2 LEU A 208      19.842  46.242  53.284  1.00 25.84
ATOM    497  C   LEU A 208      23.636  48.196  52.819  1.00 26.48
ATOM    498  O   LEU A 208      24.110  47.304  52.102  1.00 25.86
ATOM    499  N   ASP A 209      24.223  49.366  52.995  1.00 26.95
ATOM    500  CA  ASP A 209      25.500  49.673  52.415  1.00 27.62
ATOM    501  CB  ASP A 209      25.784  51.144  52.651  1.00 28.71
ATOM    502  CG  ASP A 209      27.085  51.568  52.085  1.00 31.26
ATOM    503  OD1 ASP A 209      27.132  51.860  50.873  1.00 36.95
ATOM    504  OD2 ASP A 209      28.116  51.614  52.790  1.00 36.15
ATOM    505  C   ASP A 209      26.608  48.805  53.044  1.00 27.35
ATOM    506  O   ASP A 209      27.437  48.226  52.325  1.00 25.79
ATOM    507  N   ALA A 210      26.622  48.711  54.376  1.00 26.90
ATOM    508  CA  ALA A 210      27.593  47.841  55.055  1.00 26.86
ATOM    509  CB  ALA A 210      27.495  47.969  56.588  1.00 27.07
ATOM    510  C   ALA A 210      27.314  46.398  54.635  1.00 26.04
ATOM    511  O   ALA A 210      28.221  45.618  54.413  1.00 25.78
ATOM    512  N   LEU A 211      26.050  46.060  54.478  1.00 25.05
ATOM    513  CA  LEU A 211      25.706  44.695  54.133  1.00 24.30
ATOM    514  CB  LEU A 211      24.193  44.519  54.186  1.00 24.53
ATOM    515  CG  LEU A 211      23.686  43.096  54.060  1.00 24.36
ATOM    516  CD1 LEU A 211      24.026  42.292  55.341  1.00 25.50
ATOM    517  CD2 LEU A 211      22.208  43.051  53.811  1.00 25.84
ATOM    518  C   LEU A 211      26.304  44.349  52.776  1.00 24.78
ATOM    519  O   LEU A 211      26.944  43.312  52.606  1.00 22.33
ATOM    520  N   GLU A 212      26.134  45.242  51.803  1.00 25.21
ATOM    521  CA  GLU A 212      26.692  45.029  50.461  1.00 26.66
ATOM    522  CB  GLU A 212      26.305  46.167  49.499  1.00 26.99
ATOM    523  CG  GLU A 212      24.907  45.965  48.971  1.00 30.00
ATOM    524  CD  GLU A 212      24.499  46.969  47.895  1.00 33.56
ATOM    525  OE1 GLU A 212      25.273  47.917  47.625  1.00 36.12
ATOM    526  OE2 GLU A 212      23.397  46.767  47.330  1.00 33.02
ATOM    527  C   GLU A 212      28.182  44.900  50.457  1.00 27.04
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FIGURE 4 - 14

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ATOM    528  O   GLU A 212      28.733  44.015  49.803  1.00 27.39
ATOM    529  N   THR A 213      28.843  45.788  51.182  1.00 27.11
ATOM    530  CA  THR A 213      30.277  45.764  51.276  1.00 28.14
ATOM    531  CB  THR A 213      30.732  46.915  52.190  1.00 29.23
ATOM    532  OG1 THR A 213      30.442  48.154  51.544  1.00 30.63
ATOM    533  CG2 THR A 213      32.247  46.964  52.334  1.00 30.25
ATOM    534  C   THR A 213      30.763  44.410  51.785  1.00 28.11
ATOM    535  O   THR A 213      31.627  43.782  51.180  1.00 28.64
ATOM    536  N   GLY A 214      30.177  43.930  52.875  1.00 27.59
ATOM    537  CA  GLY A 214      30.584  42.651  53.420  1.00 27.19
ATOM    538  C   GLY A 214      30.320  41.524  52.451  1.00 26.58
ATOM    539  O   GLY A 214      31.147  40.641  52.360  1.00 26.41
ATOM    540  N   TYR A 215      29.203  41.565  51.704  1.00 25.59
ATOM    541  CA  TYR A 215      28.953  40.541  50.722  1.00 24.96
ATOM    542  CB  TYR A 215      27.603  40.713  50.029  1.00 24.98
ATOM    543  CG  TYR A 215      26.481  39.927  50.676  1.00 24.39
ATOM    544  CD1 TYR A 215      26.318  38.583  50.408  1.00 23.43
ATOM    545  CE1 TYR A 215      25.353  37.865  50.995  1.00 23.60
ATOM    546  CZ  TYR A 215      24.489  38.447  51.873  1.00 23.43
ATOM    547  OH  TYR A 215      23.471  37.667  52.405  1.00 20.71
ATOM    548  CE2 TYR A 215      24.599  39.779  52.162  1.00 22.96
ATOM    549  CD2 TYR A 215      25.588  40.522  51.548  1.00 25.20
ATOM    550  C   TYR A 215      30.061  40.553  49.689  1.00 25.25
ATOM    551  O   TYR A 215      30.366  39.513  49.110  1.00 26.33
ATOM    552  N   GLY A 216      30.654  41.718  49.459  1.00 25.24
ATOM    553  CA  GLY A 216      31.713  41.864  48.482  1.00 26.31
ATOM    554  C   GLY A 216      33.126  41.522  48.953  1.00 27.38
ATOM    555  O   GLY A 216      34.042  41.476  48.131  1.00 26.99
ATOM    556  N   LYS A 217      33.308  41.257  50.253  1.00 27.48
ATOM    557  CA  LYS A 217      34.634  41.061  50.797  1.00 28.40
ATOM    558  CB  LYS A 217      34.582  40.646  52.279  1.00 28.44
ATOM    559  CG  LYS A 217      35.955  40.617  52.942  1.00 29.29
ATOM    560  CD  LYS A 217      35.813  40.332  54.396  1.00 29.94
ATOM    561  CE  LYS A 217      37.162  40.296  55.140  1.00 30.61
ATOM    562  NZ  LYS A 217      36.854  40.156  56.598  1.00 29.20
ATOM    563  C   LYS A 217      35.513  40.075  50.034  1.00 28.86
ATOM    564  O   LYS A 217      36.676  40.382  49.774  1.00 29.89
ATOM    565  N   TYR A 218      34.993  38.900  49.700  1.00 28.44
ATOM    566  CA  TYR A 218      35.808  37.883  49.051  1.00 28.68
ATOM    567  CB  TYR A 218      35.609  36.520  49.712  1.00 29.14
ATOM    568  CG  TYR A 218      36.166  36.494  51.118  1.00 29.13
ATOM    569  CD1 TYR A 218      37.538  36.390  51.360  1.00 31.65
ATOM    570  CE1 TYR A 218      38.041  36.422  52.664  1.00 31.58
ATOM    571  CZ  TYR A 218      37.156  36.576  53.700  1.00 31.05
ATOM    572  OH  TYR A 218      37.554  36.636  55.007  1.00 32.24
ATOM    573  CE2 TYR A 218      35.809  36.717  53.455  1.00 30.47
ATOM    574  CD2 TYR A 218      35.336  36.675  52.194  1.00 30.63
ATOM    575  C   TYR A 218      35.593  37.805  47.542  1.00 29.38
ATOM    576  O   TYR A 218      36.115  36.908  46.906  1.00 29.79
ATOM    577  N   LYS A 219      34.839  38.741  46.975  1.00 29.08
ATOM    578  CA  LYS A 219      34.673  38.822  45.539  1.00 29.91
ATOM    579  CB  LYS A 219      35.982  39.324  44.910  1.00 31.32
ATOM    580  CG  LYS A 219      36.464  40.655  45.484  1.00 35.36
ATOM    581  CD  LYS A 219      35.625  41.827  45.003  1.00 41.45
ATOM    582  CE  LYS A 219      36.106  43.149  45.673  1.00 45.14
ATOM    583  NZ  LYS A 219      35.760  44.401  44.929  1.00 47.55
ATOM    584  C   LYS A 219      34.275  37.477  44.937  1.00 28.82
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FIGURE 4 - 15

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ATOM    585  O   LYS A 219      34.897  36.997  43.992  1.00 27.79
ATOM    586  N   ASN A 220      33.207  36.880  45.458  1.00 27.51
ATOM    587  CA  ASN A 220      32.830  35.532  45.045  1.00 26.69
ATOM    588  CB  ASN A 220      31.959  34.915  46.154  1.00 27.49
ATOM    589  CG  ASN A 220      32.713  34.781  47.478  1.00 27.77
ATOM    590  OD1 ASN A 220      33.870  34.347  47.523  1.00 30.07
ATOM    591  ND2 ASN A 220      32.041  35.100  48.553  1.00 25.61
ATOM    592  C   ASN A 220      32.030  35.556  43.745  1.00 26.27
ATOM    593  O   ASN A 220      31.178  36.390  43.593  1.00 24.66
ATOM    594  N   PRO A 221      32.272  34.649  42.811  1.00 25.94
ATOM    595  CA  PRO A 221      31.417  34.583  41.612  1.00 26.27
ATOM    596  CB  PRO A 221      32.053  33.452  40.766  1.00 26.24
ATOM    597  CG  PRO A 221      33.431  33.288  41.308  1.00 26.68
ATOM    598  CD  PRO A 221      33.376  33.686  42.779  1.00 25.65
ATOM    599  C   PRO A 221      29.931  34.281  41.914  1.00 25.72
ATOM    600  O   PRO A 221      29.015  34.733  41.208  1.00 24.73
ATOM    601  N   TYR A 222      29.688  33.495  42.959  1.00 25.77
ATOM    602  CA  TYR A 222      28.326  33.085  43.311  1.00 25.08
ATOM    603  CB  TYR A 222      28.219  31.544  43.319  1.00 25.64
ATOM    604  CG  TYR A 222      26.828  30.997  43.600  1.00 25.34
ATOM    605  CD1 TYR A 222      26.323  30.948  44.891  1.00 25.98
ATOM    606  CE1 TYR A 222      25.038  30.463  45.158  1.00 22.06
ATOM    607  CZ  TYR A 222      24.246  30.013  44.107  1.00 23.70
ATOM    608  OH  TYR A 222      22.974  29.505  44.339  1.00 21.82
ATOM    609  CE2 TYR A 222      24.734  30.054  42.821  1.00 24.98
ATOM    610  CD2 TYR A 222      26.008  30.557  42.565  1.00 25.57
ATOM    611  C   TYR A 222      27.819  33.691  44.620  1.00 25.19
ATOM    612  O   TYR A 222      26.760  34.349  44.614  1.00 24.68
ATOM    613  N   HIS A 223      28.522  33.452  45.737  1.00 24.50
ATOM    614  CA  HIS A 223      28.085  33.958  47.033  1.00 24.84
ATOM    615  CB  HIS A 223      28.628  33.099  48.206  1.00 25.38
ATOM    616  CG  HIS A 223      28.112  31.691  48.205  1.00 23.28
ATOM    617  ND1 HIS A 223      28.788  30.655  47.593  1.00 22.84
ATOM    618  CE1 HIS A 223      28.080  29.541  47.705  1.00 24.33
ATOM    619  NE2 HIS A 223      26.975  29.814  48.380  1.00 22.32
ATOM    620  CD2 HIS A 223      26.952  31.158  48.672  1.00 24.21
ATOM    621  C   HIS A 223      28.354  35.459  47.231  1.00 24.78
ATOM    622  O   HIS A 223      29.177  35.882  48.043  1.00 24.54
ATOM    623  N   ASN A 224      27.606  36.257  46.482  1.00 25.13
ATOM    624  CA  ASN A 224      27.718  37.720  46.492  1.00 25.05
ATOM    625  CB  ASN A 224      28.265  38.187  45.156  1.00 25.36
ATOM    626  CG  ASN A 224      27.484  37.650  43.982  1.00 26.67
ATOM    627  OD1 ASN A 224      26.265  37.792  43.935  1.00 26.48
ATOM    628  ND2 ASN A 224      28.190  37.030  43.006  1.00 26.44
ATOM    629  C   ASN A 224      26.358  38.389  46.769  1.00 24.89
ATOM    630  O   ASN A 224      25.352  37.706  46.998  1.00 23.96
ATOM    631  N   GLN A 225      26.312  39.715  46.687  1.00 24.04
ATOM    632  CA  GLN A 225      25.084  40.436  46.996  1.00 24.34
ATOM    633  CB  GLN A 225      25.300  41.941  47.129  1.00 23.74
ATOM    634  CG  GLN A 225      25.840  42.638  45.899  1.00 23.81
ATOM    635  CD  GLN A 225      24.770  43.121  44.960  1.00 24.00
ATOM    636  OE1 GLN A 225      23.637  43.365  45.350  1.00 24.84
ATOM    637  NE2 GLN A 225      25.126  43.227  43.690  1.00 24.16
ATOM    638  C   GLN A 225      23.960  40.118  46.008  1.00 23.83
ATOM    639  O   GLN A 225      22.804  40.188  46.373  1.00 23.56
ATOM    640  N   ILE A 226      24.299  39.718  44.791  1.00 23.31
ATOM    641  CA  ILE A 226      23.281  39.314  43.832  1.00 24.41
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FIGURE 4 - 16

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ATOM    642  CB  ILE A 226      23.868  39.111  42.417  1.00 24.39
ATOM    643  CG1 ILE A 226      24.722  40.326  41.994  1.00 25.97
ATOM    644  CD1 ILE A 226      25.524  40.104  40.657  1.00 27.53
ATOM    645  CG2 ILE A 226      22.732  38.844  41.433  1.00 25.46
ATOM    646  C   ILE A 226      22.535  38.036  44.287  1.00 23.48
ATOM    647  O   ILE A 226      21.311  37.954  44.169  1.00 23.63
ATOM    648  N   HIS A 227      23.264  37.047  44.802  1.00 23.48
ATOM    649  CA  HIS A 227      22.634  35.821  45.280  1.00 23.18
ATOM    650  CB  HIS A 227      23.711  34.817  45.746  1.00 23.13
ATOM    651  CG  HIS A 227      23.175  33.645  46.502  1.00 22.83
ATOM    652  ND1 HIS A 227      22.269  32.760  45.965  1.00 21.81
ATOM    653  CE1 HIS A 227      21.996  31.825  46.865  1.00 23.03
ATOM    654  NE2 HIS A 227      22.706  32.060  47.945  1.00 22.02
ATOM    655  CD2 HIS A 227      23.443  33.196  47.754  1.00 22.36
ATOM    656  C   HIS A 227      21.694  36.184  46.431  1.00 23.21
ATOM    657  O   HIS A 227      20.575  35.692  46.510  1.00 23.79
ATOM    658  N   ALA A 228      22.166  37.027  47.331  1.00 23.52
ATOM    659  CA  ALA A 228      21.382  37.425  48.488  1.00 23.99
ATOM    660  CB  ALA A 228      22.162  38.393  49.336  1.00 24.41
ATOM    661  C   ALA A 228      20.077  38.083  48.007  1.00 24.31
ATOM    662  O   ALA A 228      18.968  37.784  48.521  1.00 22.38
ATOM    663  N   ALA A 229      20.233  38.990  47.048  1.00 22.66
ATOM    664  CA  ALA A 229      19.098  39.695  46.437  1.00 23.54
ATOM    665  CB  ALA A 229      19.616  40.765  45.435  1.00 23.38
ATOM    666  C   ALA A 229      18.076  38.756  45.769  1.00 22.91
ATOM    667  O   ALA A 229      16.875  38.927  45.931  1.00 24.26
ATOM    668  N   ASP A 230      18.574  37.783  45.024  1.00 23.05
ATOM    669  CA  ASP A 230      17.793  36.747  44.365  1.00 23.12
ATOM    670  CB  ASP A 230      18.787  35.822  43.683  1.00 23.76
ATOM    671  CG  ASP A 230      18.139  34.674  42.926  1.00 25.45
ATOM    672  OD1 ASP A 230      16.955  34.747  42.505  1.00 26.57
ATOM    673  OD2 ASP A 230      18.797  33.659  42.655  1.00 25.88
ATOM    674  C   ASP A 230      17.013  35.921  45.412  1.00 23.72
ATOM    675  O   ASP A 230      15.825  35.673  45.267  1.00 22.35
ATOM    676  N   VAL A 231      17.692  35.534  46.484  1.00 23.47
ATOM    677  CA  VAL A 231      17.037  34.728  47.518  1.00 24.21
ATOM    678  CB  VAL A 231      18.026  34.129  48.537  1.00 24.13
ATOM    679  CG1 VAL A 231      17.276  33.319  49.637  1.00 24.78
ATOM    680  CG2 VAL A 231      18.974  33.228  47.834  1.00 24.85
ATOM    681  C   VAL A 231      15.925  35.508  48.208  1.00 24.04
ATOM    682  O   VAL A 231      14.853  34.965  48.457  1.00 22.65
ATOM    683  N   THR A 232      16.176  36.787  48.491  1.00 23.66
ATOM    684  CA  THR A 232      15.182  37.651  49.110  1.00 23.11
ATOM    685  CB  THR A 232      15.823  38.995  49.444  1.00 23.31
ATOM    686  OG1 THR A 232      17.027  38.781  50.217  1.00 23.99
ATOM    687  CG2 THR A 232      14.945  39.802  50.329  1.00 24.41
ATOM    688  C   THR A 232      13.946  37.839  48.182  1.00 23.31
ATOM    689  O   THR A 232      12.780  37.737  48.632  1.00 22.65
ATOM    690  N   GLN A 233      14.195  38.112  46.898  1.00 23.32
ATOM    691  CA  GLN A 233      13.100  38.307  45.956  1.00 23.23
ATOM    692  CB  GLN A 233      13.597  38.776  44.586  1.00 23.03
ATOM    693  CG  GLN A 233      12.473  39.041  43.607  1.00 24.22
ATOM    694  CD  GLN A 233      12.087  37.860  42.802  1.00 25.11
ATOM    695  OE1 GLN A 233      12.885  36.967  42.585  1.00 28.30
ATOM    696  NE2 GLN A 233      10.860  37.861  42.316  1.00 27.14
ATOM    697  C   GLN A 233      12.325  37.006  45.810  1.00 22.95
ATOM    698  O   GLN A 233      11.095  36.996  45.692  1.00 21.67
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FIGURE 4 - 17

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ATOM    699  N   THR A 234      13.052  35.899  45.828  1.00 22.83
ATOM    700  CA  THR A 234      12.432  34.603  45.658  1.00 23.38
ATOM    701  CB  THR A 234      13.519  33.544  45.421  1.00 23.88
ATOM    702  OG1 THR A 234      14.199  33.791  44.158  1.00 24.26
ATOM    703  CG2 THR A 234      12.893  32.202  45.261  1.00 23.78
ATOM    704  C   THR A 234      11.499  34.279  46.845  1.00 24.31
ATOM    705  O   THR A 234      10.347  33.828  46.678  1.00 23.39
ATOM    706  N   VAL A 235      11.983  34.507  48.055  1.00 24.25
ATOM    707  CA  VAL A 235      11.155  34.327  49.222  1.00 25.40
ATOM    708  CB  VAL A 235      11.904  34.734  50.478  1.00 25.17
ATOM    709  CG1 VAL A 235      10.927  34.923  51.582  1.00 27.95
ATOM    710  CG2 VAL A 235      12.919  33.675  50.789  1.00 25.72
ATOM    711  C   VAL A 235       9.885  35.184  49.119  1.00 25.16
ATOM    712  O   VAL A 235       8.773  34.717  49.356  1.00 25.90
ATOM    713  N   HIS A 236      10.060  36.434  48.762  1.00 25.43
ATOM    714  CA  HIS A 236       8.938  37.353  48.602  1.00 25.53
ATOM    715  CB  HIS A 236       9.451  38.722  48.185  1.00 26.10
ATOM    716  CG  HIS A 236       8.365  39.715  47.946  1.00 26.27
ATOM    717  ND1 HIS A 236       7.833  40.497  48.944  1.00 31.08
ATOM    718  CE1 HIS A 236       6.905  41.286  48.431  1.00 30.30
ATOM    719  NE2 HIS A 236       6.835  41.050  47.136  1.00 29.68
ATOM    720  CD2 HIS A 236       7.728  40.070  46.814  1.00 29.08
ATOM    721  C   HIS A 236       7.936  36.801  47.576  1.00 25.45
ATOM    722  O   HIS A 236       6.749  36.699  47.844  1.00 24.41
ATOM    723  N   CYS A 237       8.437  36.388  46.420  1.00 25.77
ATOM    724  CA  CYS A 237       7.584  35.855  45.362  1.00 25.98
ATOM    725  CB  CYS A 237       8.446  35.517  44.163  1.00 26.41
ATOM    726  SG  CYS A 237       7.485  35.055  42.726  1.00 26.38
ATOM    727  C   CYS A 237       6.781  34.620  45.763  1.00 26.70
ATOM    728  O   CYS A 237       5.575  34.500  45.500  1.00 25.54
ATOM    729  N   PHE A 238       7.465  33.667  46.366  1.00 27.29
ATOM    730  CA  PHE A 238       6.803  32.483  46.890  1.00 27.86
ATOM    731  CB  PHE A 238       7.827  31.612  47.567  1.00 28.08
ATOM    732  CG  PHE A 238       7.227  30.485  48.297  1.00 30.06
ATOM    733  CD1 PHE A 238       6.765  30.667  49.561  1.00 32.89
ATOM    734  CE1 PHE A 238       6.204  29.626  50.253  1.00 35.20
ATOM    735  CZ  PHE A 238       6.073  28.401  49.676  1.00 32.48
ATOM    736  CE2 PHE A 238       6.515  28.206  48.407  1.00 33.98
ATOM    737  CD2 PHE A 238       7.094  29.254  47.712  1.00 31.40
ATOM    738  C   PHE A 238       5.647  32.801  47.877  1.00 28.36
ATOM    739  O   PHE A 238       4.544  32.208  47.796  1.00 27.43
ATOM    740  N   LEU A 239       5.914  33.708  48.817  1.00 28.35
ATOM    741  CA  LEU A 239       4.928  34.153  49.777  1.00 29.03
ATOM    742  CB  LEU A 239       5.531  35.164  50.750  1.00 29.38
ATOM    743  CG  LEU A 239       6.526  34.595  51.797  1.00 30.76
ATOM    744  CD1 LEU A 239       7.162  35.687  52.593  1.00 29.24
ATOM    745  CD2 LEU A 239       5.818  33.555  52.718  1.00 32.02
ATOM    746  C   LEU A 239       3.705  34.767  49.100  1.00 30.23
ATOM    747  O   LEU A 239       2.577  34.515  49.538  1.00 29.66
ATOM    748  N   LEU A 240       3.926  35.592  48.075  1.00 31.23
ATOM    749  CA  LEU A 240       2.822  36.236  47.348  1.00 32.84
ATOM    750  CB  LEU A 240       3.331  37.349  46.415  1.00 32.68
ATOM    751  CG  LEU A 240       3.117  38.814  46.829  1.00 34.15
ATOM    752  CD1 LEU A 240       3.678  39.123  48.212  1.00 35.53
ATOM    753  CD2 LEU A 240       3.730  39.739  45.816  1.00 35.73
ATOM    754  C   LEU A 240       2.036  35.236  46.514  1.00 33.62
ATOM    755  O   LEU A 240       0.801  35.247  46.491  1.00 33.83
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FIGURE 4 - 18

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ATOM    756  N   ARG A 241       2.745  34.365  45.815  1.00 34.38
ATOM    757  CA  ARG A 241       2.080  33.456  44.891  1.00 34.99
ATOM    758  CB  ARG A 241       3.098  32.886  43.907  1.00 35.75
ATOM    759  CG  ARG A 241       3.686  33.928  42.950  1.00 39.97
ATOM    760  CD  ARG A 241       2.669  34.564  42.024  1.00 47.09
ATOM    761  NE  ARG A 241       1.901  35.643  42.680  1.00 53.02
ATOM    762  CZ  ARG A 241       1.936  36.940  42.341  1.00 55.50
ATOM    763  NH1 ARG A 241       2.715  37.374  41.349  1.00 54.42
ATOM    764  NH2 ARG A 241       1.178  37.808  43.009  1.00 57.64
ATOM    765  C   ARG A 241       1.311  32.325  45.572  1.00 34.31
ATOM    766  O   ARG A 241       0.358  31.790  45.003  1.00 33.77
ATOM    767  N   THR A 242       1.721  31.950  46.779  1.00 33.34
ATOM    768  CA  THR A 242       1.040  30.872  47.486  1.00 32.54
ATOM    769  CB  THR A 242       2.016  30.068  48.345  1.00 32.66
ATOM    770  OG1 THR A 242       2.671  30.934  49.292  1.00 30.99
ATOM    771  CG2 THR A 242       3.138  29.477  47.490  1.00 33.23
ATOM    772  C   THR A 242      -0.040  31.414  48.388  1.00 32.38
ATOM    773  O   THR A 242      -0.894  30.659  48.844  1.00 32.62
ATOM    774  N   GLY A 243       0.011  32.704  48.691  1.00 31.97
ATOM    775  CA  GLY A 243      -0.927  33.277  49.639  1.00 32.52
ATOM    776  C   GLY A 243      -0.382  33.219  51.069  1.00 32.59
ATOM    777  O   GLY A 243      -0.901  33.865  51.987  1.00 33.09
ATOM    778  N   MET A 244       0.648  32.415  51.280  1.00 31.92
ATOM    779  CA  MET A 244       1.280  32.365  52.586  1.00 31.84
ATOM    780  CB  MET A 244       2.512  31.455  52.538  1.00 31.92
ATOM    781  CG  MET A 244       3.220  31.320  53.867  1.00 32.81
ATOM    782  SD  MET A 244       4.592  30.170  53.936  1.00 34.99
ATOM    783  CE  MET A 244       4.143  28.895  52.960  1.00 35.49
ATOM    784  C   MET A 244       1.640  33.781  53.088  1.00 31.14
ATOM    785  O   MET A 244       1.673  34.002  54.283  1.00 30.58
ATOM    786  N   VAL A 245       1.898  34.744  52.206  1.00 30.72
ATOM    787  CA  VAL A 245       2.206  36.074  52.720  1.00 31.20
ATOM    788  CB  VAL A 245       2.389  37.172  51.615  1.00 31.54
ATOM    789  CG1 VAL A 245       1.044  37.571  50.922  1.00 31.12
ATOM    790  CG2 VAL A 245       3.031  38.423  52.192  1.00 31.26
ATOM    791  C   VAL A 245       1.122  36.509  53.709  1.00 31.64
ATOM    792  O   VAL A 245       1.413  37.158  54.713  1.00 31.37
ATOM    793  N   HIS A 246      -0.126  36.134  53.433  1.00 32.15
ATOM    794  CA  HIS A 246      -1.251  36.548  54.285  1.00 32.35
ATOM    795  CB  HIS A 246      -2.588  36.466  53.500  1.00 32.09
ATOM    796  CG  HIS A 246      -2.589  37.340  52.286  1.00 33.04
ATOM    797  ND1 HIS A 246      -2.476  36.841  51.002  1.00 34.53
ATOM    798  CE1 HIS A 246      -2.421  37.845  50.147  1.00 34.13
ATOM    799  NE2 HIS A 246      -2.468  38.977  50.830  1.00 34.85
ATOM    800  CD2 HIS A 246      -2.568  38.688  52.169  1.00 33.40
ATOM    801  C   HIS A 246      -1.344  35.800  55.608  1.00 32.32
ATOM    802  O   HIS A 246      -2.081  36.222  56.485  1.00 32.69
ATOM    803  N   CYS A 247      -0.608  34.709  55.783  1.00 32.44
ATOM    804  CA  CYS A 247      -0.693  33.986  57.054  1.00 32.44
ATOM    805  CB  CYS A 247      -0.583  32.488  56.797  1.00 32.89
ATOM    806  SG  CYS A 247      -1.746  31.913  55.534  1.00 34.05
ATOM    807  C   CYS A 247       0.382  34.419  58.041  1.00 32.04
ATOM    808  O   CYS A 247       0.447  33.925  59.157  1.00 32.01
ATOM    809  N   LEU A 248       1.222  35.359  57.643  1.00 30.99
ATOM    810  CA  LEU A 248       2.329  35.744  58.495  1.00 30.08
ATOM    811  CB  LEU A 248       3.578  35.970  57.649  1.00 29.99
ATOM    812  CG  LEU A 248       4.064  34.839  56.749  1.00 30.92
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FIGURE 4 - 19

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ATOM    813  CD1 LEU A 248       5.399  35.238  56.139  1.00 32.47
ATOM    814  CD2 LEU A 248       4.209  33.528  57.498  1.00 30.59
ATOM    815  C   LEU A 248       2.085  37.005  59.290  1.00 28.96
ATOM    816  O   LEU A 248       1.452  37.949  58.823  1.00 27.76
ATOM    817  N   SER A 249       2.622  37.017  60.504  1.00 28.17
ATOM    818  CA  SER A 249       2.655  38.219  61.314  1.00 27.09
ATOM    819  CB  SER A 249       3.039  37.851  62.731  1.00 27.27
ATOM    820  OG  SER A 249       4.410  37.484  62.767  1.00 25.91
ATOM    821  C   SER A 249       3.736  39.138  60.730  1.00 27.09
ATOM    822  O   SER A 249       4.583  38.702  59.953  1.00 26.43
ATOM    823  N   GLU A 250       3.713  40.405  61.112  1.00 27.35
ATOM    824  CA  GLU A 250       4.682  41.376  60.629  1.00 27.73
ATOM    825  CB  GLU A 250       4.292  42.777  61.073  1.00 28.37
ATOM    826  CG  GLU A 250       3.070  43.272  60.313  1.00 31.86
ATOM    827  CD  GLU A 250       2.360  44.381  61.039  1.00 35.52
ATOM    828  OE1 GLU A 250       1.997  44.200  62.228  1.00 37.54
ATOM    829  OE2 GLU A 250       2.174  45.429  60.412  1.00 36.79
ATOM    830  C   GLU A 250       6.102  41.032  61.054  1.00 27.78
ATOM    831  O   GLU A 250       7.028  41.212  60.275  1.00 25.76
ATOM    832  N   ILE A 251       6.263  40.520  62.274  1.00 27.74
ATOM    833  CA  ILE A 251       7.583  40.059  62.734  1.00 28.63
ATOM    834  CB  ILE A 251       7.551  39.644  64.219  1.00 29.01
ATOM    835  CG1 ILE A 251       7.622  40.890  65.096  1.00 28.63
ATOM    836  CD1 ILE A 251       9.011  41.592  65.046  1.00 28.11
ATOM    837  CG2 ILE A 251       8.757  38.759  64.538  1.00 30.16
ATOM    838  C   ILE A 251       8.095  38.904  61.897  1.00 28.34
ATOM    839  O   ILE A 251       9.251  38.905  61.485  1.00 29.09
ATOM    840  N   GLU A 252       7.237  37.927  61.622  1.00 28.26
ATOM    841  CA  GLU A 252       7.623  36.813  60.797  1.00 28.52
ATOM    842  CB  GLU A 252       6.457  35.828  60.637  1.00 29.67
ATOM    843  CG  GLU A 252       6.230  34.890  61.822  1.00 30.93
ATOM    844  CD  GLU A 252       4.872  34.199  61.772  1.00 32.89
ATOM    845  OE1 GLU A 252       3.927  34.733  61.175  1.00 35.49
ATOM    846  OE2 GLU A 252       4.755  33.090  62.313  1.00 36.14
ATOM    847  C   GLU A 252       8.055  37.284  59.401  1.00 28.58
ATOM    848  O   GLU A 252       9.026  36.774  58.828  1.00 27.75
ATOM    849  N   LEU A 253       7.316  38.241  58.847  1.00 27.71
ATOM    850  CA  LEU A 253       7.585  38.692  57.496  1.00 28.12
ATOM    851  CB  LEU A 253       6.426  39.569  57.006  1.00 28.59
ATOM    852  CG  LEU A 253       6.338  40.064  55.563  1.00 30.30
ATOM    853  CD1 LEU A 253       6.669  38.973  54.558  1.00 31.90
ATOM    854  CD2 LEU A 253       4.907  40.614  55.305  1.00 30.18
ATOM    855  C   LEU A 253       8.910  39.452  57.514  1.00 26.83
ATOM    856  O   LEU A 253       9.767  39.237  56.683  1.00 26.60
ATOM    857  N   LEU A 254       9.074  40.315  58.500  1.00 26.42
ATOM    858  CA  LEU A 254      10.295  41.073  58.666  1.00 26.02
ATOM    859  CB  LEU A 254      10.183  41.997  59.883  1.00 25.48
ATOM    860  CG  LEU A 254      11.466  42.758  60.220  1.00 26.21
ATOM    861  CD1 LEU A 254      11.952  43.613  59.043  1.00 26.07
ATOM    862  CD2 LEU A 254      11.326  43.613  61.492  1.00 26.88
ATOM    863  C   LEU A 254      11.478  40.113  58.816  1.00 26.15
ATOM    864  O   LEU A 254      12.537  40.289  58.193  1.00 26.68
ATOM    865  N   ALA A 255      11.295  39.086  59.629  1.00 25.30
ATOM    866  CA  ALA A 255      12.361  38.119  59.898  1.00 25.06
ATOM    867  CB  ALA A 255      11.921  37.120  60.972  1.00 24.84
ATOM    868  C   ALA A 255      12.800  37.355  58.672  1.00 24.78
ATOM    869  O   ALA A 255      14.004  37.182  58.455  1.00 24.98
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FIGURE 4 - 20

```
ATOM    870  N   ILE A 256      11.854  36.900  57.860  1.00 24.23
ATOM    871  CA  ILE A 256      12.246  36.076  56.730  1.00 25.00
ATOM    872  CB  ILE A 256      11.071  35.227  56.221  1.00 25.15
ATOM    873  CG1 ILE A 256      11.476  34.369  55.035  1.00 27.65
ATOM    874  CD1 ILE A 256      12.251  33.236  55.338  1.00 31.98
ATOM    875  CG2 ILE A 256       9.898  36.081  55.662  1.00 25.27
ATOM    876  C   ILE A 256      12.907  36.936  55.612  1.00 24.62
ATOM    877  O   ILE A 256      13.849  36.506  54.952  1.00 24.56
ATOM    878  N   ILE A 257      12.427  38.146  55.417  1.00 23.59
ATOM    879  CA  ILE A 257      13.050  39.042  54.440  1.00 23.56
ATOM    880  CB  ILE A 257      12.206  40.328  54.248  1.00 23.59
ATOM    881  CG1 ILE A 257      10.852  39.969  53.605  1.00 24.54
ATOM    882  CD1 ILE A 257       9.862  41.108  53.494  1.00 25.49
ATOM    883  CG2 ILE A 257      12.988  41.373  53.407  1.00 25.28
ATOM    884  C   ILE A 257      14.471  39.371  54.907  1.00 23.11
ATOM    885  O   ILE A 257      15.394  39.313  54.137  1.00 22.16
ATOM    886  N   PHE A 258      14.648  39.718  56.177  1.00 22.99
ATOM    887  CA  PHE A 258      15.969  40.035  56.694  1.00 22.67
ATOM    888  CB  PHE A 258      15.834  40.541  58.117  1.00 22.32
ATOM    889  CG  PHE A 258      17.132  40.968  58.762  1.00 23.02
ATOM    890  CD1 PHE A 258      17.647  42.234  58.535  1.00 25.98
ATOM    891  CE1 PHE A 258      18.784  42.671  59.153  1.00 24.82
ATOM    892  CZ  PHE A 258      19.436  41.861  60.011  1.00 24.96
ATOM    893  CE2 PHE A 258      18.942  40.563  60.258  1.00 26.26
ATOM    894  CD2 PHE A 258      17.790  40.140  59.643  1.00 25.02
ATOM    895  C   PHE A 258      16.915  38.817  56.620  1.00 23.02
ATOM    896  O   PHE A 258      18.084  38.934  56.225  1.00 21.46
ATOM    897  N   ALA A 259      16.392  37.641  56.990  1.00 23.30
ATOM    898  CA  ALA A 259      17.177  36.423  56.980  1.00 22.93
ATOM    899  CB  ALA A 259      16.346  35.267  57.496  1.00 24.06
ATOM    900  C   ALA A 259      17.674  36.137  55.571  1.00 23.74
ATOM    901  O   ALA A 259      18.857  35.839  55.360  1.00 22.02
ATOM    902  N   ALA A 260      16.767  36.265  54.595  1.00 22.56
ATOM    903  CA  ALA A 260      17.130  36.074  53.193  1.00 22.45
ATOM    904  CB  ALA A 260      15.911  36.231  52.289  1.00 22.84
ATOM    905  C   ALA A 260      18.244  37.030  52.796  1.00 23.06
ATOM    906  O   ALA A 260      19.271  36.631  52.216  1.00 22.91
ATOM    907  N   ALA A 261      18.070  38.293  53.154  1.00 23.35
ATOM    908  CA  ALA A 261      19.038  39.311  52.834  1.00 23.57
ATOM    909  CB  ALA A 261      18.543  40.653  53.334  1.00 24.08
ATOM    910  C   ALA A 261      20.443  39.039  53.406  1.00 23.67
ATOM    911  O   ALA A 261      21.465  39.280  52.720  1.00 23.49
ATOM    912  N   ILE A 262      20.487  38.588  54.659  1.00 23.03
ATOM    913  CA  ILE A 262      21.744  38.433  55.360  1.00 23.37
ATOM    914  CB  ILE A 262      21.623  38.855  56.830  1.00 23.90
ATOM    915  CG1 ILE A 262      20.882  37.776  57.641  1.00 24.33
ATOM    916  CD1 ILE A 262      21.265  37.752  59.111  1.00 23.79
ATOM    917  CG2 ILE A 262      20.969  40.220  56.972  1.00 23.43
ATOM    918  C   ILE A 262      22.360  37.046  55.338  1.00 23.59
ATOM    919  O   ILE A 262      23.496  36.920  55.770  1.00 23.73
ATOM    920  N   HIS A 263      21.669  36.051  54.764  1.00 22.88
ATOM    921  CA  HIS A 263      22.021  34.637  54.933  1.00 23.14
ATOM    922  CB  HIS A 263      20.939  33.706  54.362  1.00 23.36
ATOM    923  CG  HIS A 263      21.130  33.362  52.927  1.00 22.82
ATOM    924  ND1 HIS A 263      20.795  34.233  51.908  1.00 24.09
ATOM    925  CE1 HIS A 263      21.109  33.681  50.747  1.00 22.61
ATOM    926  NE2 HIS A 263      21.617  32.479  50.983  1.00 20.94
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FIGURE 4 - 21

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ATOM    927  CD2 HIS A 263      21.660  32.268  52.337  1.00 18.65
ATOM    928  C   HIS A 263      23.411  34.184  54.463  1.00 23.05
ATOM    929  O   HIS A 263      23.892  33.176  54.964  1.00 22.10
ATOM    930  N   ASP A 264      24.088  34.936  53.584  1.00 22.76
ATOM    931  CA  ASP A 264      25.434  34.552  53.138  1.00 22.45
ATOM    932  CB  ASP A 264      25.428  34.156  51.677  1.00 22.58
ATOM    933  CG  ASP A 264      25.042  32.718  51.432  1.00 21.51
ATOM    934  OD1 ASP A 264      25.417  31.825  52.226  1.00 17.97
ATOM    935  OD2 ASP A 264      24.426  32.401  50.392  1.00 20.82
ATOM    936  C   ASP A 264      26.455  35.686  53.306  1.00 22.72
ATOM    937  O   ASP A 264      27.460  35.740  52.601  1.00 22.80
ATOM    938  N   TYR A 265      26.203  36.589  54.232  1.00 23.59
ATOM    939  CA  TYR A 265      27.040  37.780  54.393  1.00 24.42
ATOM    940  CB  TYR A 265      26.478  38.670  55.518  1.00 24.26
ATOM    941  CG  TYR A 265      27.336  39.876  55.917  1.00 25.30
ATOM    942  CD1 TYR A 265      27.306  41.073  55.166  1.00 25.63
ATOM    943  CE1 TYR A 265      28.031  42.176  55.552  1.00 25.90
ATOM    944  CZ  TYR A 265      28.833  42.117  56.692  1.00 27.04
ATOM    945  OH  TYR A 265      29.579  43.198  57.071  1.00 23.11
ATOM    946  CE2 TYR A 265      28.884  40.956  57.456  1.00 26.16
ATOM    947  CD2 TYR A 265      28.133  39.841  57.046  1.00 27.92
ATOM    948  C   TYR A 265      28.492  37.424  54.679  1.00 24.34
ATOM    949  O   TYR A 265      28.769  36.621  55.587  1.00 23.65
ATOM    950  N   GLU A 266      29.416  38.031  53.924  1.00 24.90
ATOM    951  CA  GLU A 266      30.847  37.777  54.089  1.00 25.01
ATOM    952  CB  GLU A 266      31.334  38.251  55.461  1.00 25.27
ATOM    953  CG  GLU A 266      31.574  39.739  55.546  1.00 29.88
ATOM    954  CD  GLU A 266      32.234  40.167  56.860  1.00 32.44
ATOM    955  OE1 GLU A 266      32.338  39.359  57.786  1.00 32.33
ATOM    956  OE2 GLU A 266      32.600  41.331  56.987  1.00 32.90
ATOM    957  C   GLU A 266      31.226  36.314  53.898  1.00 24.81
ATOM    958  O   GLU A 266      32.059  35.756  54.626  1.00 23.00
ATOM    959  N   HIS A 267      30.590  35.670  52.935  1.00 24.48
ATOM    960  CA  HIS A 267      30.958  34.325  52.565  1.00 23.79
ATOM    961  CB  HIS A 267      29.959  33.851  51.519  1.00 23.97
ATOM    962  CG  HIS A 267      29.858  32.379  51.361  1.00 22.47
ATOM    963  ND1 HIS A 267      30.802  31.627  50.698  1.00 22.58
ATOM    964  CE1 HIS A 267      30.405  30.362  50.672  1.00 23.27
ATOM    965  NE2 HIS A 267      29.227  30.279  51.276  1.00 20.10
ATOM    966  CD2 HIS A 267      28.859  31.524  51.704  1.00 24.39
ATOM    967  C   HIS A 267      32.391  34.308  51.964  1.00 24.73
ATOM    968  O   HIS A 267      32.762  35.173  51.156  1.00 23.60
ATOM    969  N   THR A 268      33.164  33.266  52.272  1.00 24.08
ATOM    970  CA  THR A 268      34.532  33.190  51.781  1.00 24.85
ATOM    971  CB  THR A 268      35.344  32.317  52.739  1.00 25.43
ATOM    972  OG1 THR A 268      34.629  31.074  52.962  1.00 24.28
ATOM    973  CG2 THR A 268      35.429  32.976  54.138  1.00 25.63
ATOM    974  C   THR A 268      34.641  32.580  50.385  1.00 25.16
ATOM    975  O   THR A 268      35.718  32.441  49.879  1.00 25.63
ATOM    976  N   GLY A 269      33.541  32.158  49.785  1.00 25.20
ATOM    977  CA  GLY A 269      33.610  31.425  48.537  1.00 25.18
ATOM    978  C   GLY A 269      34.122  29.989  48.704  1.00 25.22
ATOM    979  O   GLY A 269      34.588  29.372  47.755  1.00 25.10
ATOM    980  N   THR A 270      34.044  29.431  49.909  1.00 25.18
ATOM    981  CA  THR A 270      34.474  28.044  50.116  1.00 24.98
ATOM    982  CB  THR A 270      35.827  28.016  50.804  1.00 25.87
ATOM    983  OG1 THR A 270      35.736  28.722  52.043  1.00 24.43
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FIGURE 4 - 22

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ATOM    984  CG2 THR A 270      36.931  28.768  49.961  1.00 24.71
ATOM    985  C   THR A 270      33.451  27.377  50.982  1.00 25.61
ATOM    986  O   THR A 270      32.712  28.072  51.663  1.00 25.76
ATOM    987  N   THR A 271      33.417  26.045  51.001  1.00 24.86
ATOM    988  CA  THR A 271      32.383  25.330  51.722  1.00 24.95
ATOM    989  CB  THR A 271      32.204  23.891  51.206  1.00 25.68
ATOM    990  OG1 THR A 271      33.426  23.176  51.360  1.00 23.96
ATOM    991  CG2 THR A 271      31.836  23.810  49.705  1.00 25.48
ATOM    992  C   THR A 271      32.692  25.176  53.198  1.00 24.66
ATOM    993  O   THR A 271      33.812  25.328  53.643  1.00 23.25
ATOM    994  N   ASN A 272      31.681  24.831  53.960  1.00 23.97
ATOM    995  CA  ASN A 272      31.943  24.521  55.347  1.00 23.86
ATOM    996  CB  ASN A 272      30.673  24.082  56.049  1.00 23.43
ATOM    997  CG  ASN A 272      29.780  25.239  56.419  1.00 24.32
ATOM    998  OD1 ASN A 272      30.211  26.417  56.425  1.00 23.34
ATOM    999  ND2 ASN A 272      28.524  24.925  56.738  1.00 19.10
ATOM   1000  C   ASN A 272      32.995  23.405  55.487  1.00 23.79
ATOM   1001  O   ASN A 272      33.843  23.477  56.389  1.00 22.95
ATOM   1002  N   SER A 273      32.948  22.381  54.625  1.00 24.45
ATOM   1003  CA  SER A 273      33.904  21.266  54.755  1.00 26.61
ATOM   1004  CB  SER A 273      33.633  20.081  53.811  1.00 26.22
ATOM   1005  OG  SER A 273      33.484  20.562  52.513  1.00 33.03
ATOM   1006  C   SER A 273      35.310  21.779  54.542  1.00 26.36
ATOM   1007  O   SER A 273      36.230  21.320  55.201  1.00 26.23
ATOM   1008  N   PHE A 274      35.484  22.717  53.608  1.00 26.47
ATOM   1009  CA  PHE A 274      36.821  23.304  53.396  1.00 26.35
ATOM   1010  CB  PHE A 274      36.840  24.262  52.201  1.00 26.81
ATOM   1011  CG  PHE A 274      38.164  24.953  51.973  1.00 26.74
ATOM   1012  CD1 PHE A 274      39.131  24.374  51.192  1.00 27.54
ATOM   1013  CE1 PHE A 274      40.310  25.017  50.988  1.00 28.31
ATOM   1014  CZ  PHE A 274      40.532  26.261  51.549  1.00 26.76
ATOM   1015  CE2 PHE A 274      39.591  26.844  52.305  1.00 26.41
ATOM   1016  CD2 PHE A 274      38.416  26.198  52.521  1.00 26.23
ATOM   1017  C   PHE A 274      37.257  24.029  54.675  1.00 26.11
ATOM   1018  O   PHE A 274      38.388  23.922  55.080  1.00 25.54
ATOM   1019  N   HIS A 275      36.355  24.763  55.306  1.00 25.67
ATOM   1020  CA  HIS A 275      36.709  25.442  56.554  1.00 26.08
ATOM   1021  CB  HIS A 275      35.539  26.296  57.110  1.00 25.58
ATOM   1022  CG  HIS A 275      35.422  27.648  56.483  1.00 26.03
ATOM   1023  ND1 HIS A 275      35.937  28.784  57.072  1.00 27.34
ATOM   1024  CE1 HIS A 275      35.701  29.825  56.289  1.00 29.91
ATOM   1025  NE2 HIS A 275      35.042  29.407  55.220  1.00 28.80
ATOM   1026  CD2 HIS A 275      34.833  28.052  55.331  1.00 27.81
ATOM   1027  C   HIS A 275      37.149  24.404  57.592  1.00 25.82
ATOM   1028  O   HIS A 275      38.165  24.593  58.267  1.00 25.49
ATOM   1029  N   ILE A 276      36.378  23.331  57.727  1.00 26.04
ATOM   1030  CA  ILE A 276      36.681  22.288  58.721  1.00 27.18
ATOM   1031  CB  ILE A 276      35.519  21.264  58.802  1.00 26.70
ATOM   1032  CG1 ILE A 276      34.236  21.948  59.275  1.00 25.70
ATOM   1033  CD1 ILE A 276      33.030  21.100  59.098  1.00 25.15
ATOM   1034  CG2 ILE A 276      35.846  20.086  59.764  1.00 28.02
ATOM   1035  C   ILE A 276      38.026  21.614  58.408  1.00 28.28
ATOM   1036  O   ILE A 276      38.894  21.504  59.273  1.00 28.60
ATOM   1037  N   GLN A 277      38.205  21.196  57.162  1.00 29.42
ATOM   1038  CA  GLN A 277      39.442  20.525  56.742  1.00 30.33
ATOM   1039  CB  GLN A 277      39.317  20.041  55.284  1.00 31.14
ATOM   1040  CG  GLN A 277      40.646  19.752  54.569  1.00 36.51
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FIGURE 4 - 23

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ATOM   1041  CD  GLN A 277      40.537  18.717  53.421  1.00 42.53
ATOM   1042  OE1 GLN A 277      40.136  19.051  52.294  1.00 45.55
ATOM   1043  NE2 GLN A 277      40.929  17.463  53.711  1.00 44.71
ATOM   1044  C   GLN A 277      40.694  21.391  56.943  1.00 29.58
ATOM   1045  O   GLN A 277      41.703  20.900  57.403  1.00 28.72
ATOM   1046  N   THR A 278      40.612  22.695  56.693  1.00 28.92
ATOM   1047  CA  THR A 278      41.795  23.544  56.813  1.00 28.05
ATOM   1048  CB  THR A 278      41.746  24.684  55.772  1.00 28.51
ATOM   1049  OG1 THR A 278      40.513  25.408  55.883  1.00 26.14
ATOM   1050  CG2 THR A 278      41.710  24.129  54.382  1.00 28.90
ATOM   1051  C   THR A 278      41.889  24.136  58.200  1.00 27.63
ATOM   1052  O   THR A 278      42.756  24.954  58.460  1.00 26.02
ATOM   1053  N   LYS A 279      40.972  23.750  59.078  1.00 27.70
ATOM   1054  CA  LYS A 279      40.971  24.266  60.442  1.00 28.78
ATOM   1055  CB  LYS A 279      42.185  23.693  61.211  1.00 29.94
ATOM   1056  CG  LYS A 279      42.117  22.197  61.410  1.00 32.41
ATOM   1057  CD  LYS A 279      43.414  21.643  61.948  1.00 36.66
ATOM   1058  CE  LYS A 279      43.304  20.139  62.190  1.00 40.13
ATOM   1059  NZ  LYS A 279      43.096  19.400  60.908  1.00 42.20
ATOM   1060  C   LYS A 279      41.015  25.802  60.439  1.00 28.38
ATOM   1061  O   LYS A 279      41.843  26.406  61.111  1.00 27.04
ATOM   1062  N   SER A 280      40.137  26.433  59.659  1.00 27.61
ATOM   1063  CA  SER A 280      40.114  27.893  59.591  1.00 27.56
ATOM   1064  CB  SER A 280      39.128  28.352  58.510  1.00 27.42
ATOM   1065  OG  SER A 280      37.788  28.107  58.947  1.00 26.58
ATOM   1066  C   SER A 280      39.696  28.547  60.906  1.00 27.76
ATOM   1067  O   SER A 280      39.186  27.878  61.830  1.00 27.17
ATOM   1068  N   GLU A 281      39.886  29.862  60.957  1.00 27.43
ATOM   1069  CA  GLU A 281      39.498  30.677  62.103  1.00 28.59
ATOM   1070  CB  GLU A 281      39.682  32.151  61.741  1.00 29.19
ATOM   1071  CG  GLU A 281      39.028  33.124  62.728  1.00 31.27
ATOM   1072  CD  GLU A 281      39.670  33.083  64.114  1.00 32.30
ATOM   1073  OE1 GLU A 281      40.795  32.596  64.256  1.00 32.55
ATOM   1074  OE2 GLU A 281      39.049  33.548  65.081  1.00 36.03
ATOM   1075  C   GLU A 281      38.034  30.429  62.423  1.00 28.50
ATOM   1076  O   GLU A 281      37.626  30.240  63.570  1.00 28.37
ATOM   1077  N   CYS A 282      37.239  30.425  61.362  1.00 27.81
ATOM   1078  CA  CYS A 282      35.825  30.219  61.461  1.00 27.91
ATOM   1079  CB  CYS A 282      35.257  30.464  60.100  1.00 29.52
ATOM   1080  SG  CYS A 282      33.709  31.331  60.218  1.00 39.62
ATOM   1081  C   CYS A 282      35.422  28.824  62.025  1.00 25.83
ATOM   1082  O   CYS A 282      34.522  28.716  62.888  1.00 24.14
ATOM   1083  N   ALA A 283      36.078  27.767  61.557  1.00 24.17
ATOM   1084  CA  ALA A 283      35.834  26.406  62.106  1.00 24.02
ATOM   1085  CB  ALA A 283      36.600  25.382  61.334  1.00 24.05
ATOM   1086  C   ALA A 283      36.218  26.310  63.577  1.00 23.04
ATOM   1087  O   ALA A 283      35.552  25.621  64.389  1.00 21.72
ATOM   1088  N   ILE A 284      37.315  26.975  63.907  1.00 22.61
ATOM   1089  CA  ILE A 284      37.838  26.971  65.251  1.00 23.85
ATOM   1090  CB  ILE A 284      39.242  27.609  65.301  1.00 24.80
ATOM   1091  CG1 ILE A 284      40.304  26.737  64.600  1.00 27.04
ATOM   1092  CD1 ILE A 284      40.424  25.253  65.070  1.00 33.12
ATOM   1093  CG2 ILE A 284      39.683  27.877  66.727  1.00 27.40
ATOM   1094  C   ILE A 284      36.855  27.712  66.145  1.00 23.61
ATOM   1095  O   ILE A 284      36.531  27.231  67.229  1.00 23.35
ATOM   1096  N   VAL A 285      36.360  28.869  65.699  1.00 22.78
ATOM   1097  CA  VAL A 285      35.403  29.635  66.514  1.00 22.77
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FIGURE 4 - 24

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ATOM   1098  CB  VAL A 285      34.993  30.982  65.864  1.00 23.08
ATOM   1099  CG1 VAL A 285      33.780  31.570  66.568  1.00 24.45
ATOM   1100  CG2 VAL A 285      36.146  32.001  65.905  1.00 23.34
ATOM   1101  C   VAL A 285      34.122  28.812  66.719  1.00 22.53
ATOM   1102  O   VAL A 285      33.623  28.709  67.829  1.00 21.06
ATOM   1103  N   TYR A 286      33.601  28.219  65.642  1.00 22.77
ATOM   1104  CA  TYR A 286      32.299  27.540  65.708  1.00 23.09
ATOM   1105  CB  TYR A 286      31.439  27.922  64.520  1.00 24.08
ATOM   1106  CG  TYR A 286      31.091  29.377  64.603  1.00 22.97
ATOM   1107  CD1 TYR A 286      30.259  29.833  65.598  1.00 23.16
ATOM   1108  CE1 TYR A 286      29.934  31.161  65.704  1.00 22.01
ATOM   1109  CZ  TYR A 286      30.465  32.076  64.808  1.00 23.58
ATOM   1110  OH  TYR A 286      30.162  33.404  64.954  1.00 21.49
ATOM   1111  CE2 TYR A 286      31.292  31.661  63.817  1.00 23.56
ATOM   1112  CD2 TYR A 286      31.605  30.298  63.709  1.00 27.17
ATOM   1113  C   TYR A 286      32.343  26.041  65.898  1.00 23.63
ATOM   1114  O   TYR A 286      31.327  25.369  65.752  1.00 23.23
ATOM   1115  N   ASN A 287      33.500  25.522  66.266  1.00 22.70
ATOM   1116  CA  ASN A 287      33.578  24.128  66.633  1.00 23.33
ATOM   1117  CB  ASN A 287      32.811  23.910  67.947  1.00 22.74
ATOM   1118  CG  ASN A 287      33.364  24.765  69.098  1.00 25.05
ATOM   1119  OD1 ASN A 287      34.583  24.834  69.289  1.00 23.37
ATOM   1120  ND2 ASN A 287      32.469  25.385  69.893  1.00 22.58
ATOM   1121  C   ASN A 287      33.038  23.215  65.536  1.00 23.81
ATOM   1122  O   ASN A 287      32.338  22.246  65.847  1.00 22.48
ATOM   1123  N   ASP A 288      33.316  23.568  64.271  1.00 23.85
ATOM   1124  CA  ASP A 288      32.933  22.768  63.088  1.00 23.97
ATOM   1125  CB  ASP A 288      33.401  21.310  63.235  1.00 24.21
ATOM   1126  CG  ASP A 288      34.919  21.156  63.249  1.00 23.57
ATOM   1127  OD1 ASP A 288      35.653  22.129  62.904  1.00 24.90
ATOM   1128  OD2 ASP A 288      35.463  20.075  63.615  1.00 22.57
ATOM   1129  C   ASP A 288      31.419  22.749  62.815  1.00 25.06
ATOM   1130  O   ASP A 288      30.968  22.071  61.907  1.00 24.35
ATOM   1131  N   ARG A 289      30.633  23.454  63.636  1.00 25.53
ATOM   1132  CA  ARG A 289      29.191  23.440  63.487  1.00 26.65
ATOM   1133  CB  ARG A 289      28.571  23.286  64.873  1.00 27.35
ATOM   1134  CG  ARG A 289      28.927  21.909  65.491  1.00 33.21
ATOM   1135  CD  ARG A 289      28.306  21.600  66.880  1.00 36.44
ATOM   1136  NE  ARG A 289      28.671  20.274  67.372  1.00 38.40
ATOM   1137  CZ  ARG A 289      27.848  19.447  68.032  1.00 37.54
ATOM   1138  NH1 ARG A 289      26.596  19.812  68.268  1.00 42.60
ATOM   1139  NH2 ARG A 289      28.272  18.289  68.494  1.00 29.90
ATOM   1140  C   ARG A 289      28.614  24.651  62.676  1.00 25.08
ATOM   1141  O   ARG A 289      28.803  25.804  63.018  1.00 23.90
ATOM   1142  N   SER A 290      27.971  24.353  61.564  1.00 24.69
ATOM   1143  CA  SER A 290      27.362  25.372  60.719  1.00 25.02
ATOM   1144  CB  SER A 290      26.025  25.786  61.314  1.00 24.48
ATOM   1145  OG  SER A 290      25.113  24.730  61.178  1.00 25.90
ATOM   1146  C   SER A 290      28.291  26.583  60.629  1.00 24.80
ATOM   1147  O   SER A 290      27.901  27.687  60.939  1.00 25.11
ATOM   1148  N   VAL A 291      29.515  26.344  60.207  1.00 24.15
ATOM   1149  CA  VAL A 291      30.598  27.313  60.362  1.00 26.07
ATOM   1150  CB  VAL A 291      31.924  26.640  59.928  1.00 26.98
ATOM   1151  CG1 VAL A 291      33.020  27.607  59.781  1.00 27.90
ATOM   1152  CG2 VAL A 291      32.256  25.547  60.965  1.00 27.11
ATOM   1153  C   VAL A 291      30.352  28.663  59.691  1.00 25.71
ATOM   1154  O   VAL A 291      30.323  29.685  60.366  1.00 25.95
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FIGURE 4 - 25

```
ATOM   1155  N   LEU A 292      30.093  28.672  58.398  1.00 25.03
ATOM   1156  CA  LEU A 292      29.825  29.945  57.735  1.00 26.04
ATOM   1157  CB  LEU A 292      29.950  29.810  56.230  1.00 25.17
ATOM   1158  CG  LEU A 292      31.382  29.884  55.679  1.00 25.99
ATOM   1159  CD1 LEU A 292      31.379  29.506  54.232  1.00 25.63
ATOM   1160  CD2 LEU A 292      31.991  31.271  55.819  1.00 25.55
ATOM   1161  C   LEU A 292      28.467  30.519  58.114  1.00 25.59
ATOM   1162  O   LEU A 292      28.349  31.719  58.305  1.00 26.25
ATOM   1163  N   GLU A 293      27.465  29.657  58.304  1.00 25.02
ATOM   1164  CA  GLU A 293      26.123  30.137  58.638  1.00 24.53
ATOM   1165  CB  GLU A 293      25.099  29.008  58.611  1.00 24.83
ATOM   1166  CG  GLU A 293      24.848  28.429  57.204  1.00 26.46
ATOM   1167  CD  GLU A 293      25.890  27.394  56.748  1.00 25.22
ATOM   1168  OE1 GLU A 293      26.722  26.982  57.581  1.00 23.13
ATOM   1169  OE2 GLU A 293      25.912  27.046  55.542  1.00 22.44
ATOM   1170  C   GLU A 293      26.121  30.881  59.961  1.00 23.72
ATOM   1171  O   GLU A 293      25.583  31.980  60.048  1.00 23.20
ATOM   1172  N   ASN A 294      26.772  30.317  60.974  1.00 23.06
ATOM   1173  CA  ASN A 294      27.005  31.030  62.235  1.00 22.73
ATOM   1174  CB  ASN A 294      27.749  30.147  63.259  1.00 22.50
ATOM   1175  CG  ASN A 294      26.787  29.239  64.042  1.00 24.68
ATOM   1176  OD1 ASN A 294      25.838  29.723  64.626  1.00 22.47
ATOM   1177  ND2 ASN A 294      27.016  27.919  64.016  1.00 24.08
ATOM   1178  C   ASN A 294      27.714  32.369  62.061  1.00 22.61
ATOM   1179  O   ASN A 294      27.328  33.355  62.674  1.00 24.02
ATOM   1180  N   HIS A 295      28.745  32.416  61.227  1.00 22.90
ATOM   1181  CA  HIS A 295      29.415  33.643  60.928  1.00 22.56
ATOM   1182  CB  HIS A 295      30.633  33.399  60.059  1.00 23.13
ATOM   1183  CG  HIS A 295      31.297  34.657  59.617  1.00 25.39
ATOM   1184  ND1 HIS A 295      32.125  35.391  60.443  1.00 33.65
ATOM   1185  CE1 HIS A 295      32.627  36.409  59.765  1.00 33.93
ATOM   1186  NE2 HIS A 295      32.154  36.363  58.533  1.00 33.72
ATOM   1187  CD2 HIS A 295      31.320  35.271  58.416  1.00 28.03
ATOM   1188  C   HIS A 295      28.479  34.641  60.252  1.00 23.27
ATOM   1189  O   HIS A 295      28.460  35.827  60.608  1.00 23.54
ATOM   1190  N   HIS A 296      27.675  34.192  59.299  1.00 23.29
ATOM   1191  CA  HIS A 296      26.828  35.170  58.610  1.00 24.09
ATOM   1192  CB  HIS A 296      25.940  34.551  57.535  1.00 23.78
ATOM   1193  CG  HIS A 296      26.665  33.743  56.523  1.00 25.05
ATOM   1194  ND1 HIS A 296      27.836  34.159  55.923  1.00 23.62
ATOM   1195  CE1 HIS A 296      28.236  33.225  55.075  1.00 26.92
ATOM   1196  NE2 HIS A 296      27.350  32.239  55.082  1.00 26.51
ATOM   1197  CD2 HIS A 296      26.378  32.526  56.001  1.00 25.09
ATOM   1198  C   HIS A 296      25.939  35.903  59.606  1.00 24.57
ATOM   1199  O   HIS A 296      25.812  37.143  59.572  1.00 24.04
ATOM   1200  N   ILE A 297      25.356  35.130  60.525  1.00 23.95
ATOM   1201  CA  ILE A 297      24.412  35.675  61.458  1.00 23.96
ATOM   1202  CB  ILE A 297      23.762  34.544  62.258  1.00 24.70
ATOM   1203  CG1 ILE A 297      23.050  33.562  61.326  1.00 25.82
ATOM   1204  CD1 ILE A 297      22.716  32.244  61.977  1.00 28.16
ATOM   1205  CG2 ILE A 297      22.828  35.086  63.218  1.00 23.43
ATOM   1206  C   ILE A 297      25.118  36.597  62.410  1.00 24.26
ATOM   1207  O   ILE A 297      24.731  37.738  62.591  1.00 23.37
ATOM   1208  N   SER A 298      26.158  36.069  63.034  1.00 24.50
ATOM   1209  CA  SER A 298      26.885  36.774  64.067  1.00 24.59
ATOM   1210  CB  SER A 298      28.066  35.910  64.509  1.00 24.82
ATOM   1211  OG  SER A 298      28.747  36.584  65.506  1.00 22.02
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FIGURE 4 - 26

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ATOM   1212  C   SER A 298      27.464  38.102  63.616  1.00 23.96
ATOM   1213  O   SER A 298      27.348  39.121  64.281  1.00 23.83
ATOM   1214  N   SER A 299      28.153  38.067  62.506  1.00 23.74
ATOM   1215  CA  SER A 299      28.793  39.256  62.025  1.00 25.90
ATOM   1216  CB  SER A 299      29.730  38.892  60.871  1.00 26.01
ATOM   1217  OG  SER A 299      28.923  38.452  59.811  1.00 31.64
ATOM   1218  C   SER A 299      27.733  40.306  61.648  1.00 25.47
ATOM   1219  O   SER A 299      27.949  41.498  61.843  1.00 25.44
ATOM   1220  N   VAL A 300      26.555  39.882  61.201  1.00 25.28
ATOM   1221  CA  VAL A 300      25.521  40.851  60.875  1.00 25.23
ATOM   1222  CB  VAL A 300      24.403  40.237  60.014  1.00 24.83
ATOM   1223  CG1 VAL A 300      23.172  41.070  60.050  1.00 25.69
ATOM   1224  CG2 VAL A 300      24.871  40.093  58.589  1.00 25.45
ATOM   1225  C   VAL A 300      24.964  41.473  62.150  1.00 25.42
ATOM   1226  O   VAL A 300      24.819  42.690  62.231  1.00 24.44
ATOM   1227  N   PHE A 301      24.654  40.663  63.158  1.00 25.61
ATOM   1228  CA  PHE A 301      24.184  41.238  64.421  1.00 26.45
ATOM   1229  CB  PHE A 301      23.602  40.180  65.376  1.00 26.77
ATOM   1230  CG  PHE A 301      22.187  39.825  65.061  1.00 27.13
ATOM   1231  CD1 PHE A 301      21.131  40.559  65.619  1.00 28.20
ATOM   1232  CE1 PHE A 301      19.823  40.274  65.312  1.00 28.26
ATOM   1233  CZ  PHE A 301      19.517  39.243  64.443  1.00 30.66
ATOM   1234  CE2 PHE A 301      20.561  38.485  63.868  1.00 29.07
ATOM   1235  CD2 PHE A 301      21.897  38.800  64.181  1.00 28.75
ATOM   1236  C   PHE A 301      25.276  42.077  65.076  1.00 26.47
ATOM   1237  O   PHE A 301      24.981  43.088  65.721  1.00 26.56
ATOM   1238  N   ARG A 302      26.538  41.730  64.844  1.00 26.42
ATOM   1239  CA  ARG A 302      27.614  42.552  65.376  1.00 26.55
ATOM   1240  CB  ARG A 302      28.986  41.917  65.166  1.00 26.72
ATOM   1241  CG  ARG A 302      30.127  42.749  65.727  1.00 26.93
ATOM   1242  CD  ARG A 302      31.516  42.209  65.298  1.00 29.65
ATOM   1243  NE  ARG A 302      31.774  40.849  65.792  1.00 27.69
ATOM   1244  CZ  ARG A 302      32.044  40.544  67.057  1.00 31.00
ATOM   1245  NH1 ARG A 302      32.084  41.476  67.984  1.00 29.89
ATOM   1246  NH2 ARG A 302      32.279  39.278  67.416  1.00 31.00
ATOM   1247  C   ARG A 302      27.599  43.932  64.728  1.00 26.61
ATOM   1248  O   ARG A 302      27.788  44.945  65.411  1.00 26.17
ATOM   1249  N   LEU A 303      27.380  43.997  63.426  1.00 27.42
ATOM   1250  CA  LEU A 303      27.248  45.305  62.762  1.00 28.60
ATOM   1251  CB  LEU A 303      26.781  45.165  61.319  1.00 29.20
ATOM   1252  CG  LEU A 303      27.752  44.910  60.187  1.00 32.21
ATOM   1253  CD1 LEU A 303      26.953  44.673  58.927  1.00 32.72
ATOM   1254  CD2 LEU A 303      28.685  46.129  60.004  1.00 31.69
ATOM   1255  C   LEU A 303      26.180  46.174  63.385  1.00 28.74
ATOM   1256  O   LEU A 303      26.311  47.356  63.436  1.00 27.28
ATOM   1257  N   MET A 304      25.095  45.557  63.825  1.00 29.74
ATOM   1258  CA  MET A 304      23.940  46.303  64.262  1.00 30.71
ATOM   1259  CB  MET A 304      22.681  45.451  64.111  1.00 31.09
ATOM   1260  CG  MET A 304      22.242  45.334  62.662  1.00 30.97
ATOM   1261  SD  MET A 304      20.617  44.646  62.454  1.00 31.09
ATOM   1262  CE  MET A 304      20.787  43.027  63.297  1.00 33.19
ATOM   1263  C   MET A 304      24.107  46.800  65.669  1.00 32.29
ATOM   1264  O   MET A 304      23.203  47.427  66.216  1.00 31.63
ATOM   1265  N   GLN A 305      25.275  46.533  66.250  1.00 33.75
ATOM   1266  CA  GLN A 305      25.594  47.078  67.555  1.00 35.64
ATOM   1267  CB  GLN A 305      26.604  46.205  68.285  1.00 36.17
ATOM   1268  CG  GLN A 305      26.034  44.850  68.710  1.00 38.77
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FIGURE 4 - 27

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ATOM   1269  CD  GLN A 305      26.762  44.295  69.906  1.00 41.31
ATOM   1270  OE1 GLN A 305      27.996  44.192  69.901  1.00 45.03
ATOM   1271  NE2 GLN A 305      26.016  43.961  70.941  1.00 41.89
ATOM   1272  C   GLN A 305      26.129  48.512  67.415  1.00 36.24
ATOM   1273  O   GLN A 305      26.153  49.253  68.389  1.00 35.74
ATOM   1274  N   ASP A 306      26.618  48.881  66.232  1.00 37.02
ATOM   1275  CA  ASP A 306      26.911  50.291  65.978  1.00 38.31
ATOM   1276  CB  ASP A 306      27.716  50.492  64.695  1.00 38.81
ATOM   1277  CG  ASP A 306      29.093  49.828  64.756  1.00 41.22
ATOM   1278  OD1 ASP A 306      29.819  50.043  65.744  1.00 46.02
ATOM   1279  OD2 ASP A 306      29.539  49.070  63.869  1.00 45.38
ATOM   1280  C   ASP A 306      25.536  50.942  65.867  1.00 38.36
ATOM   1281  O   ASP A 306      24.672  50.491  65.097  1.00 37.88
ATOM   1282  N   ASP A 307      25.318  51.970  66.663  1.00 38.69
ATOM   1283  CA  ASP A 307      24.019  52.634  66.721  1.00 39.08
ATOM   1284  CB  ASP A 307      24.167  53.925  67.499  1.00 40.15
ATOM   1285  CG  ASP A 307      24.481  53.687  68.934  1.00 43.00
ATOM   1286  OD1 ASP A 307      23.794  52.824  69.532  1.00 45.74
ATOM   1287  OD2 ASP A 307      25.385  54.325  69.531  1.00 48.46
ATOM   1288  C   ASP A 307      23.421  53.005  65.382  1.00 37.50
ATOM   1289  O   ASP A 307      22.244  52.808  65.135  1.00 37.61
ATOM   1290  N   GLU A 308      24.250  53.543  64.520  1.00 36.37
ATOM   1291  CA  GLU A 308      23.797  54.051  63.254  1.00 36.08
ATOM   1292  CB  GLU A 308      24.860  54.977  62.701  1.00 36.74
ATOM   1293  CG  GLU A 308      26.116  54.265  62.215  1.00 39.70
ATOM   1294  CD  GLU A 308      27.194  54.082  63.274  1.00 43.85
ATOM   1295  OE1 GLU A 308      26.905  54.242  64.490  1.00 46.81
ATOM   1296  OE2 GLU A 308      28.352  53.776  62.880  1.00 47.12
ATOM   1297  C   GLU A 308      23.462  52.972  62.229  1.00 35.25
ATOM   1298  O   GLU A 308      23.200  53.283  61.073  1.00 34.93
ATOM   1299  N   MET A 309      23.480  51.712  62.642  1.00 33.64
ATOM   1300  CA  MET A 309      23.092  50.634  61.756  1.00 33.48
ATOM   1301  CB  MET A 309      24.311  49.814  61.372  1.00 33.75
ATOM   1302  CG  MET A 309      24.986  50.460  60.219  1.00 37.45
ATOM   1303  SD  MET A 309      26.271  49.514  59.726  1.00 44.65
ATOM   1304  CE  MET A 309      27.062  50.738  58.746  1.00 42.08
ATOM   1305  C   MET A 309      22.049  49.730  62.373  1.00 31.95
ATOM   1306  O   MET A 309      21.722  48.707  61.803  1.00 30.98
ATOM   1307  N   ASN A 310      21.524  50.114  63.533  1.00 30.61
ATOM   1308  CA  ASN A 310      20.596  49.259  64.222  1.00 29.40
ATOM   1309  CB  ASN A 310      20.682  49.399  65.740  1.00 30.07
ATOM   1310  CG  ASN A 310      19.856  48.367  66.437  1.00 27.68
ATOM   1311  OD1 ASN A 310      19.354  47.447  65.813  1.00 29.66
ATOM   1312  ND2 ASN A 310      19.705  48.510  67.716  1.00 33.43
ATOM   1313  C   ASN A 310      19.200  49.500  63.779  1.00 28.30
ATOM   1314  O   ASN A 310      18.451  50.222  64.401  1.00 27.73
ATOM   1315  N   ILE A 311      18.846  48.843  62.697  1.00 27.73
ATOM   1316  CA  ILE A 311      17.551  49.035  62.095  1.00 27.56
ATOM   1317  CB  ILE A 311      17.512  48.340  60.716  1.00 27.87
ATOM   1318  CG1 ILE A 311      17.674  46.832  60.877  1.00 28.78
ATOM   1319  CD1 ILE A 311      17.431  46.067  59.586  1.00 30.28
ATOM   1320  CG2 ILE A 311      18.627  48.900  59.813  1.00 26.32
ATOM   1321  C   ILE A 311      16.426  48.527  62.986  1.00 27.67
ATOM   1322  O   ILE A 311      15.270  48.876  62.772  1.00 26.32
ATOM   1323  N   PHE A 312      16.743  47.673  63.962  1.00 27.05
ATOM   1324  CA  PHE A 312      15.712  47.191  64.860  1.00 27.71
ATOM   1325  CB  PHE A 312      15.912  45.742  65.210  1.00 27.73
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FIGURE 4 - 28

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ATOM   1326  CG  PHE A 312      15.972  44.830  64.025  1.00 30.56
ATOM   1327  CD1 PHE A 312      14.930  44.751  63.132  1.00 33.57
ATOM   1328  CE1 PHE A 312      15.002  43.880  62.056  1.00 34.17
ATOM   1329  CZ  PHE A 312      16.097  43.102  61.881  1.00 30.86
ATOM   1330  CE2 PHE A 312      17.141  43.200  62.740  1.00 32.22
ATOM   1331  CD2 PHE A 312      17.080  44.036  63.813  1.00 30.37
ATOM   1332  C   PHE A 312      15.639  47.984  66.132  1.00 27.20
ATOM   1333  O   PHE A 312      14.954  47.584  67.055  1.00 27.20
ATOM   1334  N   ILE A 313      16.320  49.119  66.175  1.00 27.49
ATOM   1335  CA  ILE A 313      16.347  49.962  67.369  1.00 27.89
ATOM   1336  CB  ILE A 313      16.930  51.352  67.053  1.00 28.55
ATOM   1337  CG1 ILE A 313      17.083  52.165  68.338  1.00 30.16
ATOM   1338  CD1 ILE A 313      18.307  51.894  69.062  1.00 32.74
ATOM   1339  CG2 ILE A 313      15.997  52.163  66.153  1.00 28.45
ATOM   1340  C   ILE A 313      14.978  50.173  68.011  1.00 27.28
ATOM   1341  O   ILE A 313      14.855  50.228  69.234  1.00 25.99
ATOM   1342  N   ASN A 314      13.937  50.282  67.209  1.00 26.62
ATOM   1343  CA  ASN A 314      12.657  50.633  67.794  1.00 26.99
ATOM   1344  CB  ASN A 314      11.963  51.673  66.924  1.00 26.81
ATOM   1345  CG  ASN A 314      12.678  52.999  66.963  1.00 27.02
ATOM   1346  OD1 ASN A 314      13.114  53.432  68.029  1.00 26.48
ATOM   1347  ND2 ASN A 314      12.839  53.639  65.804  1.00 22.53
ATOM   1348  C   ASN A 314      11.743  49.459  68.101  1.00 27.34
ATOM   1349  O   ASN A 314      10.663  49.659  68.618  1.00 26.98
ATOM   1350  N   LEU A 315      12.129  48.234  67.775  1.00 27.24
ATOM   1351  CA  LEU A 315      11.284  47.104  68.186  1.00 27.35
ATOM   1352  CB  LEU A 315      11.893  45.812  67.700  1.00 27.88
ATOM   1353  CG  LEU A 315      11.525  45.351  66.290  1.00 26.48
ATOM   1354  CD1 LEU A 315      11.990  46.339  65.254  1.00 27.10
ATOM   1355  CD2 LEU A 315      12.178  43.998  66.046  1.00 25.47
ATOM   1356  C   LEU A 315      11.103  47.023  69.708  1.00 27.78
ATOM   1357  O   LEU A 315      11.920  47.539  70.454  1.00 27.60
ATOM   1358  N   THR A 316      10.042  46.367  70.175  1.00 28.13
ATOM   1359  CA  THR A 316       9.909  46.112  71.607  1.00 27.86
ATOM   1360  CB  THR A 316       8.501  45.649  72.040  1.00 28.10
ATOM   1361  OG1 THR A 316       8.198  44.376  71.449  1.00 27.75
ATOM   1362  CG2 THR A 316       7.379  46.626  71.553  1.00 28.03
ATOM   1363  C   THR A 316      10.867  44.987  71.906  1.00 28.42
ATOM   1364  O   THR A 316      11.296  44.234  71.005  1.00 27.89
ATOM   1365  N   LYS A 317      11.205  44.859  73.170  1.00 28.21
ATOM   1366  CA  LYS A 317      12.083  43.788  73.582  1.00 29.61
ATOM   1367  CB  LYS A 317      12.335  43.874  75.072  1.00 31.38
ATOM   1368  CG  LYS A 317      13.101  45.134  75.396  1.00 35.45
ATOM   1369  CD  LYS A 317      13.102  45.413  76.884  1.00 40.21
ATOM   1370  CE  LYS A 317      13.594  46.816  77.178  1.00 42.60
ATOM   1371  NZ  LYS A 317      13.784  47.032  78.663  1.00 44.22
ATOM   1372  C   LYS A 317      11.571  42.420  73.195  1.00 28.22
ATOM   1373  O   LYS A 317      12.322  41.615  72.668  1.00 28.15
ATOM   1374  N   ASP A 318      10.298  42.157  73.404  1.00 27.35
ATOM   1375  CA  ASP A 318       9.763  40.869  72.998  1.00 27.77
ATOM   1376  CB  ASP A 318       8.318  40.714  73.411  1.00 28.12
ATOM   1377  CG  ASP A 318       8.149  40.575  74.895  1.00 29.65
ATOM   1378  OD1 ASP A 318       9.139  40.324  75.600  1.00 32.17
ATOM   1379  OD2 ASP A 318       7.042  40.709  75.437  1.00 33.70
ATOM   1380  C   ASP A 318       9.857  40.710  71.487  1.00 27.58
ATOM   1381  O   ASP A 318      10.193  39.642  70.994  1.00 26.40
ATOM   1382  N   GLU A 319       9.545  41.779  70.753  1.00 27.26
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FIGURE 4 - 29

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ATOM   1383  CA  GLU A 319       9.654  41.726  69.297  1.00 27.35
ATOM   1384  CB  GLU A 319       9.215  43.059  68.665  1.00 26.85
ATOM   1385  CG  GLU A 319       7.714  43.239  68.659  1.00 27.76
ATOM   1386  CD  GLU A 319       7.284  44.596  68.139  1.00 28.50
ATOM   1387  OE1 GLU A 319       8.079  45.575  68.204  1.00 26.61
ATOM   1388  OE2 GLU A 319       6.142  44.666  67.660  1.00 30.18
ATOM   1389  C   GLU A 319      11.072  41.382  68.887  1.00 26.65
ATOM   1390  O   GLU A 319      11.306  40.580  68.009  1.00 26.83
ATOM   1391  N   PHE A 320      12.037  41.993  69.529  1.00 26.87
ATOM   1392  CA  PHE A 320      13.389  41.771  69.102  1.00 26.86
ATOM   1393  CB  PHE A 320      14.348  42.801  69.688  1.00 26.73
ATOM   1394  CG  PHE A 320      15.748  42.614  69.219  1.00 27.92
ATOM   1395  CD1 PHE A 320      16.107  42.986  67.921  1.00 29.52
ATOM   1396  CE1 PHE A 320      17.402  42.797  67.443  1.00 28.77
ATOM   1397  CZ  PHE A 320      18.356  42.205  68.270  1.00 29.30
ATOM   1398  CE2 PHE A 320      17.995  41.810  69.567  1.00 27.36
ATOM   1399  CD2 PHE A 320      16.693  42.022  70.032  1.00 25.87
ATOM   1400  C   PHE A 320      13.803  40.339  69.470  1.00 26.81
ATOM   1401  O   PHE A 320      14.477  39.666  68.695  1.00 26.03
ATOM   1402  N   VAL A 321      13.343  39.848  70.610  1.00 26.30
ATOM   1403  CA  VAL A 321      13.677  38.481  71.004  1.00 27.36
ATOM   1404  CB  VAL A 321      13.097  38.102  72.378  1.00 28.09
ATOM   1405  CG1 VAL A 321      13.263  36.595  72.643  1.00 30.42
ATOM   1406  CG2 VAL A 321      13.792  38.904  73.465  1.00 29.24
ATOM   1407  C   VAL A 321      13.168  37.506  69.963  1.00 26.89
ATOM   1408  O   VAL A 321      13.919  36.623  69.500  1.00 24.83
ATOM   1409  N   GLU A 322      11.899  37.673  69.566  1.00 26.22
ATOM   1410  CA  GLU A 322      11.315  36.754  68.564  1.00 26.33
ATOM   1411  CB  GLU A 322       9.799  36.997  68.409  1.00 27.22
ATOM   1412  CG  GLU A 322       9.160  35.961  67.493  1.00 27.71
ATOM   1413  CD  GLU A 322       7.725  36.251  67.078  1.00 30.34
ATOM   1414  OE1 GLU A 322       7.167  37.307  67.440  1.00 28.94
ATOM   1415  OE2 GLU A 322       7.174  35.363  66.374  1.00 30.54
ATOM   1416  C   GLU A 322      12.027  36.853  67.200  1.00 25.04
ATOM   1417  O   GLU A 322      12.359  35.870  66.558  1.00 24.18
ATOM   1418  N   LEU A 323      12.238  38.064  66.750  1.00 25.14
ATOM   1419  CA  LEU A 323      12.900  38.284  65.467  1.00 25.11
ATOM   1420  CB  LEU A 323      12.980  39.765  65.170  1.00 24.79
ATOM   1421  CG  LEU A 323      13.931  39.995  63.988  1.00 31.17
ATOM   1422  CD1 LEU A 323      13.112  39.978  62.755  1.00 34.32
ATOM   1423  CD2 LEU A 323      14.626  41.270  64.062  1.00 38.15
ATOM   1424  C   LEU A 323      14.325  37.664  65.393  1.00 23.72
ATOM   1425  O   LEU A 323      14.632  36.964  64.457  1.00 21.93
ATOM   1426  N   ARG A 324      15.181  37.959  66.370  1.00 23.18
ATOM   1427  CA  ARG A 324      16.552  37.431  66.400  1.00 23.37
ATOM   1428  CB  ARG A 324      17.290  37.949  67.648  1.00 23.61
ATOM   1429  CG  ARG A 324      18.697  37.403  67.847  1.00 24.20
ATOM   1430  CD  ARG A 324      19.392  38.064  69.020  1.00 26.16
ATOM   1431  NE  ARG A 324      20.583  37.364  69.495  1.00 24.79
ATOM   1432  CZ  ARG A 324      21.762  37.377  68.902  1.00 25.46
ATOM   1433  NH1 ARG A 324      21.952  37.999  67.750  1.00 24.35
ATOM   1434  NH2 ARG A 324      22.758  36.715  69.439  1.00 26.40
ATOM   1435  C   ARG A 324      16.514  35.891  66.403  1.00 22.60
ATOM   1436  O   ARG A 324      17.231  35.244  65.645  1.00 21.33
ATOM   1437  N   ALA A 325      15.663  35.321  67.250  1.00 22.71
ATOM   1438  CA  ALA A 325      15.507  33.858  67.309  1.00 23.79
ATOM   1439  CB  ALA A 325      14.528  33.412  68.450  1.00 23.58
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FIGURE 4 - 30

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ATOM   1440  C   ALA A 325      15.048  33.282  65.986  1.00 23.21
ATOM   1441  O   ALA A 325      15.569  32.283  65.546  1.00 23.48
ATOM   1442  N   LEU A 326      14.106  33.925  65.328  1.00 23.68
ATOM   1443  CA  LEU A 326      13.659  33.431  64.022  1.00 24.72
ATOM   1444  CB  LEU A 326      12.438  34.202  63.535  1.00 24.80
ATOM   1445  CG  LEU A 326      11.086  33.812  64.128  1.00 26.92
ATOM   1446  CD1 LEU A 326      10.053  34.843  63.794  1.00 28.73
ATOM   1447  CD2 LEU A 326      10.643  32.449  63.620  1.00 28.88
ATOM   1448  C   LEU A 326      14.753  33.523  62.972  1.00 24.03
ATOM   1449  O   LEU A 326      15.000  32.601  62.211  1.00 24.50
ATOM   1450  N   VAL A 327      15.411  34.661  62.926  1.00 24.35
ATOM   1451  CA  VAL A 327      16.445  34.899  61.946  1.00 23.95
ATOM   1452  CB  VAL A 327      17.012  36.355  62.065  1.00 24.09
ATOM   1453  CG1 VAL A 327      18.254  36.505  61.213  1.00 24.65
ATOM   1454  CG2 VAL A 327      15.958  37.402  61.683  1.00 24.81
ATOM   1455  C   VAL A 327      17.573  33.871  62.114  1.00 24.26
ATOM   1456  O   VAL A 327      18.028  33.284  61.151  1.00 23.56
ATOM   1457  N   ILE A 328      18.043  33.676  63.348  1.00 24.09
ATOM   1458  CA  ILE A 328      19.117  32.722  63.604  1.00 25.47
ATOM   1459  CB  ILE A 328      19.419  32.652  65.128  1.00 25.33
ATOM   1460  CG1 ILE A 328      20.096  33.946  65.572  1.00 24.87
ATOM   1461  CD1 ILE A 328      20.095  34.169  67.069  1.00 25.34
ATOM   1462  CG2 ILE A 328      20.253  31.445  65.454  1.00 27.55
ATOM   1463  C   ILE A 328      18.734  31.324  63.109  1.00 25.63
ATOM   1464  O   ILE A 328      19.521  30.638  62.437  1.00 24.56
ATOM   1465  N   GLU A 329      17.529  30.911  63.472  1.00 25.02
ATOM   1466  CA  GLU A 329      17.033  29.621  63.074  1.00 25.69
ATOM   1467  CB  GLU A 329      15.651  29.462  63.661  1.00 26.39
ATOM   1468  CG  GLU A 329      15.015  28.128  63.447  1.00 28.62
ATOM   1469  CD  GLU A 329      13.774  27.965  64.251  1.00 30.27
ATOM   1470  OE1 GLU A 329      12.726  28.590  63.910  1.00 31.97
ATOM   1471  OE2 GLU A 329      13.859  27.213  65.217  1.00 31.39
ATOM   1472  C   GLU A 329      16.950  29.483  61.564  1.00 25.48
ATOM   1473  O   GLU A 329      17.318  28.461  60.994  1.00 25.01
ATOM   1474  N   MET A 330      16.405  30.506  60.919  1.00 25.03
ATOM   1475  CA  MET A 330      16.219  30.465  59.491  1.00 24.90
ATOM   1476  CB  MET A 330      15.467  31.717  59.014  1.00 25.26
ATOM   1477  CG  MET A 330      13.963  31.638  59.294  1.00 28.72
ATOM   1478  SD  MET A 330      13.152  33.195  58.943  1.00 33.82
ATOM   1479  CE  MET A 330      11.977  32.587  58.351  1.00 36.77
ATOM   1480  C   MET A 330      17.553  30.373  58.767  1.00 24.36
ATOM   1481  O   MET A 330      17.676  29.602  57.852  1.00 22.45
ATOM   1482  N   VAL A 331      18.526  31.192  59.134  1.00 23.88
ATOM   1483  CA  VAL A 331      19.840  31.155  58.469  1.00 24.46
ATOM   1484  CB  VAL A 331      20.697  32.395  58.800  1.00 24.19
ATOM   1485  CG1 VAL A 331      21.991  32.321  58.081  1.00 25.88
ATOM   1486  CG2 VAL A 331      19.969  33.691  58.339  1.00 25.26
ATOM   1487  C   VAL A 331      20.574  29.813  58.747  1.00 24.51
ATOM   1488  O   VAL A 331      21.174  29.231  57.843  1.00 23.67
ATOM   1489  N   LEU A 332      20.452  29.268  59.952  1.00 24.08
ATOM   1490  CA  LEU A 332      21.028  27.954  60.197  1.00 25.02
ATOM   1491  CB  LEU A 332      20.928  27.551  61.677  1.00 25.83
ATOM   1492  CG  LEU A 332      21.819  28.398  62.563  1.00 26.90
ATOM   1493  CD1 LEU A 332      21.638  28.097  64.076  1.00 30.05
ATOM   1494  CD2 LEU A 332      23.253  28.183  62.192  1.00 29.47
ATOM   1495  C   LEU A 332      20.367  26.899  59.316  1.00 24.24
ATOM   1496  O   LEU A 332      20.983  25.915  58.966  1.00 22.81
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FIGURE 4 - 31

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ATOM   1497  N   ALA A 333      19.133  27.140  58.911  1.00 24.56
ATOM   1498  CA  ALA A 333      18.431  26.173  58.082  1.00 24.92
ATOM   1499  CB  ALA A 333      16.924  26.426  58.136  1.00 25.23
ATOM   1500  C   ALA A 333      18.968  26.205  56.632  1.00 24.78
ATOM   1501  O   ALA A 333      18.619  25.350  55.836  1.00 24.42
ATOM   1502  N   THR A 334      19.819  27.173  56.293  1.00 23.73
ATOM   1503  CA  THR A 334      20.484  27.140  54.981  1.00 24.11
ATOM   1504  CB  THR A 334      20.791  28.556  54.447  1.00 23.67
ATOM   1505  OG1 THR A 334      21.731  29.222  55.300  1.00 22.04
ATOM   1506  CG2 THR A 334      19.540  29.381  54.513  1.00 24.28
ATOM   1507  C   THR A 334      21.746  26.294  54.942  1.00 24.62
ATOM   1508  O   THR A 334      22.347  26.124  53.884  1.00 26.26
ATOM   1509  N   ASP A 335      22.173  25.782  56.080  1.00 25.09
ATOM   1510  CA  ASP A 335      23.301  24.848  56.105  1.00 25.88
ATOM   1511  CB  ASP A 335      23.653  24.532  57.544  1.00 25.88
ATOM   1512  CG  ASP A 335      24.810  23.569  57.664  1.00 28.05
ATOM   1513  OD1 ASP A 335      25.247  22.982  56.644  1.00 29.12
ATOM   1514  OD2 ASP A 335      25.329  23.353  58.767  1.00 26.41
ATOM   1515  C   ASP A 335      22.868  23.548  55.351  1.00 26.26
ATOM   1516  O   ASP A 335      21.949  22.834  55.767  1.00 24.79
ATOM   1517  N   MET A 336      23.532  23.254  54.244  1.00 26.73
ATOM   1518  CA  MET A 336      23.141  22.126  53.404  1.00 27.61
ATOM   1519  CB  MET A 336      23.979  22.091  52.127  1.00 27.16
ATOM   1520  CG  MET A 336      23.656  23.232  51.171  1.00 30.08
ATOM   1521  SD  MET A 336      22.026  23.228  50.458  1.00 31.97
ATOM   1522  CE  MET A 336      22.087  21.842  49.508  1.00 30.55
ATOM   1523  C   MET A 336      23.246  20.791  54.154  1.00 28.26
ATOM   1524  O   MET A 336      22.589  19.835  53.780  1.00 26.53
ATOM   1525  N   SER A 337      24.067  20.738  55.204  1.00 29.77
ATOM   1526  CA  SER A 337      24.191  19.510  55.997  1.00 31.39
ATOM   1527  CB  SER A 337      25.355  19.610  56.985  1.00 31.59
ATOM   1528  OG  SER A 337      24.993  20.406  58.099  1.00 34.71
ATOM   1529  C   SER A 337      22.872  19.202  56.705  1.00 31.60
ATOM   1530  O   SER A 337      22.638  18.089  57.130  1.00 32.24
ATOM   1531  N   CYS A 338      22.001  20.194  56.826  1.00 31.43
ATOM   1532  CA  CYS A 338      20.694  20.002  57.455  1.00 31.29
ATOM   1533  CB  CYS A 338      20.355  21.263  58.271  1.00 31.60
ATOM   1534  SG  CYS A 338      21.646  21.631  59.545  1.00 36.90
ATOM   1535  C   CYS A 338      19.582  19.724  56.388  1.00 30.25
ATOM   1536  O   CYS A 338      18.384  19.614  56.710  1.00 28.49
ATOM   1537  N   HIS A 339      19.974  19.644  55.121  1.00 28.75
ATOM   1538  CA  HIS A 339      18.986  19.496  54.058  1.00 28.67
ATOM   1539  CB  HIS A 339      19.664  19.406  52.686  1.00 27.90
ATOM   1540  CG  HIS A 339      18.709  18.984  51.623  1.00 26.96
ATOM   1541  ND1 HIS A 339      17.784  19.844  51.066  1.00 29.81
ATOM   1542  CE1 HIS A 339      17.143  19.220  50.094  1.00 27.11
ATOM   1543  NE2 HIS A 339      17.640  18.001  49.980  1.00 27.00
ATOM   1544  CD2 HIS A 339      18.643  17.843  50.902  1.00 23.50
ATOM   1545  C   HIS A 339      18.022  18.278  54.200  1.00 28.48
ATOM   1546  O   HIS A 339      16.805  18.427  54.165  1.00 28.39
ATOM   1547  N   PHE A 340      18.561  17.080  54.321  1.00 28.95
ATOM   1548  CA  PHE A 340      17.700  15.894  54.416  1.00 29.74
ATOM   1549  CB  PHE A 340      18.530  14.620  54.277  1.00 29.41
ATOM   1550  CG  PHE A 340      19.138  14.485  52.923  1.00 30.39
ATOM   1551  CD1 PHE A 340      18.336  14.409  51.807  1.00 31.03
ATOM   1552  CE1 PHE A 340      18.885  14.297  50.553  1.00 31.56
ATOM   1553  CZ  PHE A 340      20.244  14.302  50.387  1.00 31.77
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FIGURE 4 - 32

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ATOM   1554  CE2 PHE A 340      21.059  14.414  51.477  1.00 32.89
ATOM   1555  CD2 PHE A 340      20.507  14.507  52.746  1.00 32.31
ATOM   1556  C   PHE A 340      16.799  15.852  55.650  1.00 30.27
ATOM   1557  O   PHE A 340      15.606  15.553  55.536  1.00 28.38
ATOM   1558  N   GLN A 341      17.338  16.228  56.812  1.00 31.56
ATOM   1559  CA  GLN A 341      16.548  16.190  58.034  1.00 32.34
ATOM   1560  CB  GLN A 341      17.386  16.545  59.285  1.00 33.22
ATOM   1561  CG  GLN A 341      17.110  15.623  60.471  1.00 38.91
ATOM   1562  CD  GLN A 341      17.358  16.254  61.847  1.00 44.17
ATOM   1563  OE1 GLN A 341      18.457  16.763  62.132  1.00 46.44
ATOM   1564  NE2 GLN A 341      16.338  16.185  62.720  1.00 45.71
ATOM   1565  C   GLN A 341      15.379  17.122  57.870  1.00 32.30
ATOM   1566  O   GLN A 341      14.257  16.794  58.247  1.00 32.20
ATOM   1567  N   GLN A 342      15.617  18.279  57.269  1.00 31.68
ATOM   1568  CA  GLN A 342      14.549  19.244  57.113  1.00 32.49
ATOM   1569  CB  GLN A 342      15.076  20.555  56.521  1.00 32.20
ATOM   1570  CG  GLN A 342      15.254  21.651  57.530  1.00 32.75
ATOM   1571  CD  GLN A 342      15.514  22.990  56.849  1.00 30.30
ATOM   1572  OE1 GLN A 342      16.567  23.173  56.241  1.00 27.47
ATOM   1573  NE2 GLN A 342      14.558  23.894  56.932  1.00 26.01
ATOM   1574  C   GLN A 342      13.433  18.779  56.210  1.00 32.61
ATOM   1575  O   GLN A 342      12.255  19.002  56.490  1.00 33.03
ATOM   1576  N   VAL A 343      13.802  18.176  55.096  1.00 32.75
ATOM   1577  CA  VAL A 343      12.807  17.835  54.113  1.00 33.01
ATOM   1578  CB  VAL A 343      13.464  17.479  52.796  1.00 33.01
ATOM   1579  CG1 VAL A 343      12.475  16.757  51.866  1.00 32.64
ATOM   1580  CG2 VAL A 343      14.000  18.728  52.154  1.00 32.32
ATOM   1581  C   VAL A 343      11.960  16.678  54.615  1.00 34.15
ATOM   1582  O   VAL A 343      10.745  16.698  54.529  1.00 34.28
ATOM   1583  N   LYS A 344      12.590  15.682  55.196  1.00 34.97
ATOM   1584  CA  LYS A 344      11.818  14.556  55.603  1.00 36.70
ATOM   1585  CB  LYS A 344      12.700  13.331  55.778  1.00 37.61
ATOM   1586  CG  LYS A 344      13.616  13.335  56.938  1.00 40.80
ATOM   1587  CD  LYS A 344      14.172  11.912  57.123  1.00 45.37
ATOM   1588  CE  LYS A 344      15.169  11.840  58.288  1.00 48.63
ATOM   1589  NZ  LYS A 344      15.740  10.447  58.442  1.00 50.88
ATOM   1590  C   LYS A 344      10.996  14.856  56.851  1.00 36.61
ATOM   1591  O   LYS A 344       9.792  14.568  56.905  1.00 37.27
ATOM   1592  N   THR A 345      11.639  15.408  57.858  1.00 36.08
ATOM   1593  CA  THR A 345      10.922  15.821  59.033  1.00 36.55
ATOM   1594  CB  THR A 345      11.811  16.755  59.882  1.00 37.09
ATOM   1595  OG1 THR A 345      12.761  15.975  60.637  1.00 38.22
ATOM   1596  CG2 THR A 345      11.026  17.381  60.952  1.00 38.58
ATOM   1597  C   THR A 345       9.625  16.505  58.583  1.00 36.03
ATOM   1598  O   THR A 345       8.564  16.282  59.148  1.00 35.29
ATOM   1599  N   MET A 346       9.677  17.324  57.540  1.00 35.44
ATOM   1600  CA  MET A 346       8.437  17.978  57.115  1.00 35.18
ATOM   1601  CB  MET A 346       8.715  19.191  56.228  1.00 34.25
ATOM   1602  CG  MET A 346       7.488  19.905  55.788  1.00 34.26
ATOM   1603  SD  MET A 346       6.807  21.015  57.007  1.00 36.20
ATOM   1604  CE  MET A 346       6.313  20.001  58.138  1.00 41.66
ATOM   1605  C   MET A 346       7.491  17.009  56.391  1.00 34.84
ATOM   1606  O   MET A 346       6.267  17.107  56.528  1.00 32.59
ATOM   1607  N   LYS A 347       8.068  16.135  55.575  1.00 35.13
ATOM   1608  CA  LYS A 347       7.272  15.144  54.885  1.00 36.70
ATOM   1609  CB  LYS A 347       8.166  14.122  54.201  1.00 37.16
ATOM   1610  CG  LYS A 347       8.482  14.377  52.745  1.00 39.09
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FIGURE 4 - 33

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ATOM   1611  CD  LYS A 347       8.920  13.065  52.117  1.00 41.81
ATOM   1612  CE  LYS A 347       9.514  13.225  50.755  1.00 44.09
ATOM   1613  NZ  LYS A 347       9.476  11.903  50.048  1.00 47.02
ATOM   1614  C   LYS A 347       6.437  14.428  55.933  1.00 36.83
ATOM   1615  O   LYS A 347       5.222  14.316  55.800  1.00 37.08
ATOM   1616  N   THR A 348       7.117  13.945  56.973  1.00 36.99
ATOM   1617  CA  THR A 348       6.484  13.239  58.089  1.00 36.80
ATOM   1618  CB  THR A 348       7.551  12.849  59.150  1.00 36.62
ATOM   1619  OG1 THR A 348       8.570  12.044  58.537  1.00 35.13
ATOM   1620  CG2 THR A 348       6.984  11.923  60.222  1.00 36.98
ATOM   1621  C   THR A 348       5.366  14.090  58.705  1.00 37.68
ATOM   1622  O   THR A 348       4.247  13.598  58.939  1.00 36.47
ATOM   1623  N   ALA A 349       5.639  15.368  58.946  1.00 38.09
ATOM   1624  CA  ALA A 349       4.612  16.243  59.505  1.00 39.20
ATOM   1625  CB  ALA A 349       5.163  17.607  59.767  1.00 38.97
ATOM   1626  C   ALA A 349       3.333  16.320  58.630  1.00 40.61
ATOM   1627  O   ALA A 349       2.218  16.261  59.180  1.00 39.98
ATOM   1628  N   LEU A 350       3.480  16.430  57.303  1.00 41.90
ATOM   1629  CA  LEU A 350       2.311  16.513  56.406  1.00 43.93
ATOM   1630  CB  LEU A 350       2.687  16.985  55.005  1.00 44.11
ATOM   1631  CG  LEU A 350       3.148  18.434  54.887  1.00 45.25
ATOM   1632  CD1 LEU A 350       3.419  18.752  53.459  1.00 46.56
ATOM   1633  CD2 LEU A 350       2.118  19.411  55.450  1.00 46.74
ATOM   1634  C   LEU A 350       1.470  15.213  56.325  1.00 45.41
ATOM   1635  O   LEU A 350       0.251  15.294  56.301  1.00 44.89
ATOM   1636  N   GLN A 351       2.106  14.053  56.166  1.00 47.51
ATOM   1637  CA  GLN A 351       1.414  12.796  56.417  1.00 49.57
ATOM   1638  CB  GLN A 351       1.419  11.816  55.242  1.00 49.98
ATOM   1639  CG  GLN A 351      -0.020  11.460  54.778  1.00 51.21
ATOM   1640  CD  GLN A 351      -0.738  10.561  55.753  1.00 53.09
ATOM   1641  OE1 GLN A 351      -0.729  10.823  56.953  1.00 55.97
ATOM   1642  NE2 GLN A 351      -1.365   9.503  55.249  1.00 54.55
ATOM   1643  C   GLN A 351       2.088  12.262  57.685  1.00 50.70
ATOM   1644  O   GLN A 351       3.280  11.975  57.712  1.00 51.78
ATOM   1645  N   GLN A 352       1.254  12.184  58.709  1.00 51.41
ATOM   1646  CA  GLN A 352       1.514  12.011  60.149  1.00 52.33
ATOM   1647  CB  GLN A 352       2.913  11.866  60.723  1.00 52.54
ATOM   1648  CG  GLN A 352       2.743  11.614  62.233  1.00 54.61
ATOM   1649  CD  GLN A 352       3.900  10.907  62.926  1.00 57.23
ATOM   1650  OE1 GLN A 352       4.939  10.638  62.321  1.00 58.02
ATOM   1651  NE2 GLN A 352       3.707  10.591  64.213  1.00 58.40
ATOM   1652  C   GLN A 352       1.096  13.435  60.274  1.00 52.58
ATOM   1653  O   GLN A 352       1.853  14.377  60.516  1.00 53.38
ATOM   1654  N   LEU A 353      -0.172  13.520  60.000  1.00 52.59
ATOM   1655  CA  LEU A 353      -0.925  14.690  59.693  1.00 52.45
ATOM   1656  CB  LEU A 353      -2.292  14.096  59.506  1.00 52.83
ATOM   1657  CG  LEU A 353      -2.968  14.587  58.263  1.00 53.29
ATOM   1658  CD1 LEU A 353      -2.069  14.235  57.109  1.00 54.18
ATOM   1659  CD2 LEU A 353      -4.247  13.857  58.241  1.00 53.56
ATOM   1660  C   LEU A 353      -1.259  15.954  60.456  1.00 52.10
ATOM   1661  O   LEU A 353      -2.414  16.340  60.373  1.00 52.31
ATOM   1662  N   GLU A 354      -0.425  16.677  61.173  1.00 51.68
ATOM   1663  CA  GLU A 354      -1.023  17.998  61.371  1.00 51.09
ATOM   1664  CB  GLU A 354      -2.066  18.158  62.483  1.00 51.22
ATOM   1665  CG  GLU A 354      -3.112  19.143  61.920  1.00 52.24
ATOM   1666  CD  GLU A 354      -4.443  19.240  62.646  1.00 54.10
ATOM   1667  OE1 GLU A 354      -4.529  18.886  63.840  1.00 56.03
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FIGURE 4 - 34

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ATOM   1668  OE2 GLU A 354      -5.417  19.710  62.015  1.00 56.46
ATOM   1669  C   GLU A 354      -0.221  19.237  61.123  1.00 49.78
ATOM   1670  O   GLU A 354       0.656  19.219  60.277  1.00 50.05
ATOM   1671  N   ARG A 355      -0.584  20.342  61.760  1.00 48.58
ATOM   1672  CA  ARG A 355       0.010  21.583  61.312  1.00 48.12
ATOM   1673  CB  ARG A 355      -0.538  22.859  61.979  1.00 48.84
ATOM   1674  CG  ARG A 355      -0.930  22.740  63.416  1.00 51.18
ATOM   1675  CD  ARG A 355      -2.412  22.597  63.599  1.00 55.09
ATOM   1676  NE  ARG A 355      -2.819  21.213  63.840  1.00 57.72
ATOM   1677  CZ  ARG A 355      -2.716  20.574  65.008  1.00 59.06
ATOM   1678  NH1 ARG A 355      -2.219  21.188  66.072  1.00 59.99
ATOM   1679  NH2 ARG A 355      -3.116  19.312  65.114  1.00 59.23
ATOM   1680  C   ARG A 355       1.491  21.551  61.453  1.00 45.66
ATOM   1681  O   ARG A 355       2.118  20.664  62.041  1.00 45.55
ATOM   1682  N   ILE A 356       2.030  22.576  60.861  1.00 43.00
ATOM   1683  CA  ILE A 356       3.397  22.776  60.851  1.00 40.82
ATOM   1684  CB  ILE A 356       3.797  22.797  59.428  1.00 41.74
ATOM   1685  CG1 ILE A 356       3.286  21.502  58.792  1.00 42.54
ATOM   1686  CD1 ILE A 356       3.471  21.514  57.355  1.00 46.54
ATOM   1687  CG2 ILE A 356       5.289  22.974  59.325  1.00 41.20
ATOM   1688  C   ILE A 356       3.452  24.118  61.457  1.00 38.75
ATOM   1689  O   ILE A 356       2.635  24.979  61.144  1.00 37.54
ATOM   1690  N   ASP A 357       4.375  24.278  62.372  1.00 36.88
ATOM   1691  CA  ASP A 357       4.603  25.565  62.980  1.00 36.37
ATOM   1692  CB  ASP A 357       5.775  25.482  63.975  1.00 36.94
ATOM   1693  CG  ASP A 357       6.192  24.061  64.281  1.00 38.37
ATOM   1694  OD1 ASP A 357       5.970  23.153  63.441  1.00 45.18
ATOM   1695  OD2 ASP A 357       6.756  23.736  65.341  1.00 42.63
ATOM   1696  C   ASP A 357       4.995  26.464  61.778  1.00 34.92
ATOM   1697  O   ASP A 357       5.469  25.963  60.759  1.00 32.72
ATOM   1698  N   LYS A 358       4.768  27.767  61.880  1.00 33.63
ATOM   1699  CA  LYS A 358       5.236  28.673  60.843  1.00 33.15
ATOM   1700  CB  LYS A 358       4.703  30.080  61.048  1.00 33.54
ATOM   1701  CG  LYS A 358       3.327  30.357  60.445  1.00 34.80
ATOM   1702  CD  LYS A 358       2.995  31.803  60.830  1.00 37.48
ATOM   1703  CE  LYS A 358       1.555  32.128  61.140  1.00 36.06
ATOM   1704  NZ  LYS A 358       1.482  33.522  61.730  1.00 35.42
ATOM   1705  C   LYS A 358       6.764  28.704  60.807  1.00 31.31
ATOM   1706  O   LYS A 358       7.319  28.694  59.752  1.00 31.38
ATOM   1707  N   PRO A 359       7.440  28.737  61.954  1.00 30.21
ATOM   1708  CA  PRO A 359       8.913  28.717  61.968  1.00 28.91
ATOM   1709  CB  PRO A 359       9.242  28.534  63.438  1.00 29.49
ATOM   1710  CG  PRO A 359       8.053  29.158  64.179  1.00 29.60
ATOM   1711  CD  PRO A 359       6.875  28.876  63.308  1.00 29.90
ATOM   1712  C   PRO A 359       9.510  27.599  61.127  1.00 27.66
ATOM   1713  O   PRO A 359      10.407  27.806  60.288  1.00 26.82
ATOM   1714  N   LYS A 360       9.008  26.401  61.308  1.00 25.51
ATOM   1715  CA  LYS A 360       9.481  25.292  60.502  1.00 25.11
ATOM   1716  CB  LYS A 360       8.800  24.022  60.989  1.00 25.87
ATOM   1717  CG  LYS A 360       9.303  22.795  60.353  1.00 26.57
ATOM   1718  CD  LYS A 360       8.548  21.583  60.885  1.00 30.32
ATOM   1719  CE  LYS A 360       8.968  20.331  60.151  1.00 30.02
ATOM   1720  NZ  LYS A 360      10.367  20.036  60.578  1.00 30.81
ATOM   1721  C   LYS A 360       9.252  25.469  58.964  1.00 24.60
ATOM   1722  O   LYS A 360      10.101  25.121  58.156  1.00 23.16
ATOM   1723  N   ALA A 361       8.092  25.982  58.566  1.00 24.34
ATOM   1724  CA  ALA A 361       7.829  26.225  57.143  1.00 24.04
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FIGURE 4 - 35

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ATOM   1725  CB  ALA A 361       6.328  26.507  56.913  1.00 24.51
ATOM   1726  C   ALA A 361       8.668  27.372  56.615  1.00 23.42
ATOM   1727  O   ALA A 361       9.157  27.313  55.479  1.00 24.59
ATOM   1728  N   LEU A 362       8.854  28.400  57.433  1.00 22.89
ATOM   1729  CA  LEU A 362       9.672  29.541  57.036  1.00 23.47
ATOM   1730  CB  LEU A 362       9.568  30.669  58.058  1.00 23.00
ATOM   1731  CG  LEU A 362       8.197  31.341  58.145  1.00 24.77
ATOM   1732  CD1 LEU A 362       8.161  32.247  59.341  1.00 25.84
ATOM   1733  CD2 LEU A 362       7.885  32.116  56.883  1.00 24.30
ATOM   1734  C   LEU A 362      11.151  29.147  56.855  1.00 23.10
ATOM   1735  O   LEU A 362      11.836  29.675  55.975  1.00 23.09
ATOM   1736  N   SER A 363      11.642  28.255  57.718  1.00 21.53
ATOM   1737  CA  SER A 363      12.994  27.776  57.579  1.00 20.99
ATOM   1738  CB  SER A 363      13.404  26.929  58.771  1.00 20.20
ATOM   1739  OG  SER A 363      13.962  27.765  59.752  1.00 20.07
ATOM   1740  C   SER A 363      13.102  26.993  56.306  1.00 20.81
ATOM   1741  O   SER A 363      14.053  27.136  55.541  1.00 20.16
ATOM   1742  N   LEU A 364      12.096  26.179  56.045  1.00 21.38
ATOM   1743  CA  LEU A 364      12.099  25.393  54.836  1.00 21.49
ATOM   1744  CB  LEU A 364      10.931  24.397  54.871  1.00 23.06
ATOM   1745  CG  LEU A 364      10.800  23.642  53.574  1.00 23.22
ATOM   1746  CD1 LEU A 364      12.019  22.817  53.341  1.00 25.06
ATOM   1747  CD2 LEU A 364       9.522  22.777  53.551  1.00 24.91
ATOM   1748  C   LEU A 364      12.025  26.279  53.594  1.00 21.33
ATOM   1749  O   LEU A 364      12.708  26.037  52.611  1.00 20.27
ATOM   1750  N   LEU A 365      11.206  27.318  53.661  1.00 22.02
ATOM   1751  CA  LEU A 365      11.075  28.281  52.562  1.00 23.61
ATOM   1752  CB  LEU A 365       9.983  29.307  52.899  1.00 23.87
ATOM   1753  CG  LEU A 365      10.005  30.622  52.093  1.00 26.79
ATOM   1754  CD1 LEU A 365       9.881  30.370  50.610  1.00 29.67
ATOM   1755  CD2 LEU A 365       8.927  31.537  52.577  1.00 27.76
ATOM   1756  C   LEU A 365      12.424  28.987  52.242  1.00 23.37
ATOM   1757  O   LEU A 365      12.829  29.079  51.077  1.00 24.18
ATOM   1758  N   LEU A 366      13.147  29.430  53.270  1.00 23.52
ATOM   1759  CA  LEU A 366      14.438  30.092  53.044  1.00 22.61
ATOM   1760  CB  LEU A 366      15.020  30.663  54.327  1.00 22.46
ATOM   1761  CG  LEU A 366      16.359  31.387  54.140  1.00 23.17
ATOM   1762  CD1 LEU A 366      16.239  32.475  53.039  1.00 23.81
ATOM   1763  CD2 LEU A 366      16.871  32.013  55.432  1.00 21.84
ATOM   1764  C   LEU A 366      15.386  29.132  52.380  1.00 22.38
ATOM   1765  O   LEU A 366      16.118  29.477  51.425  1.00 23.42
ATOM   1766  N   HIS A 367      15.342  27.890  52.816  1.00 22.06
ATOM   1767  CA  HIS A 367      16.218  26.901  52.259  1.00 21.44
ATOM   1768  CB  HIS A 367      16.126  25.602  53.036  1.00 21.40
ATOM   1769  CG  HIS A 367      16.981  24.516  52.474  1.00 22.23
ATOM   1770  ND1 HIS A 367      18.327  24.671  52.234  1.00 26.81
ATOM   1771  CE1 HIS A 367      18.823  23.543  51.757  1.00 22.83
ATOM   1772  NE2 HIS A 367      17.850  22.658  51.689  1.00 26.16
ATOM   1773  CD2 HIS A 367      16.686  23.242  52.132  1.00 23.15
ATOM   1774  C   HIS A 367      15.899  26.683  50.781  1.00 22.51
ATOM   1775  O   HIS A 367      16.790  26.566  49.927  1.00 22.57
ATOM   1776  N   ALA A 368      14.617  26.523  50.490  1.00 22.80
ATOM   1777  CA  ALA A 368      14.180  26.343  49.119  1.00 23.11
ATOM   1778  CB  ALA A 368      12.674  26.217  49.115  1.00 23.25
ATOM   1779  C   ALA A 368      14.626  27.542  48.248  1.00 22.38
ATOM   1780  O   ALA A 368      15.144  27.386  47.144  1.00 22.23
ATOM   1781  N   ALA A 369      14.402  28.740  48.748  1.00 22.34
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FIGURE 4 - 36

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ATOM   1782  CA  ALA A 369      14.763  29.927  47.984  1.00 22.30
ATOM   1783  CB  ALA A 369      14.295  31.153  48.684  1.00 21.94
ATOM   1784  C   ALA A 369      16.267  29.977  47.719  1.00 22.37
ATOM   1785  O   ALA A 369      16.706  30.404  46.658  1.00 22.52
ATOM   1786  N   ASP A 370      17.041  29.484  48.669  1.00 22.47
ATOM   1787  CA  ASP A 370      18.483  29.460  48.566  1.00 23.23
ATOM   1788  CB  ASP A 370      19.065  28.914  49.859  1.00 23.02
ATOM   1789  CG  ASP A 370      20.543  29.146  49.999  1.00 23.78
ATOM   1790  OD1 ASP A 370      21.110  30.060  49.334  1.00 21.73
ATOM   1791  OD2 ASP A 370      21.210  28.453  50.811  1.00 22.98
ATOM   1792  C   ASP A 370      18.943  28.603  47.376  1.00 24.15
ATOM   1793  O   ASP A 370      19.931  28.961  46.717  1.00 23.57
ATOM   1794  N   ILE A 371      18.250  27.481  47.117  1.00 23.80
ATOM   1795  CA  ILE A 371      18.618  26.583  46.032  1.00 24.25
ATOM   1796  CB  ILE A 371      18.872  25.124  46.548  1.00 24.47
ATOM   1797  CG1 ILE A 371      17.607  24.497  47.137  1.00 26.11
ATOM   1798  CD1 ILE A 371      17.772  23.030  47.496  1.00 26.20
ATOM   1799  CG2 ILE A 371      19.950  25.102  47.601  1.00 24.53
ATOM   1800  C   ILE A 371      17.555  26.608  44.922  1.00 24.55
ATOM   1801  O   ILE A 371      17.295  25.592  44.245  1.00 23.68
ATOM   1802  N   SER A 372      16.985  27.789  44.713  1.00 24.65
ATOM   1803  CA  SER A 372      15.882  27.960  43.793  1.00 24.65
ATOM   1804  CB  SER A 372      14.973  29.101  44.260  1.00 24.84
ATOM   1805  OG  SER A 372      15.624  30.360  44.220  1.00 24.06
ATOM   1806  C   SER A 372      16.265  28.194  42.333  1.00 25.14
ATOM   1807  O   SER A 372      15.409  28.061  41.458  1.00 26.12
ATOM   1808  N   HIS A 373      17.515  28.517  42.037  1.00 24.22
ATOM   1809  CA  HIS A 373      17.810  28.865  40.663  1.00 24.25
ATOM   1810  CB  HIS A 373      19.214  29.435  40.523  1.00 24.70
ATOM   1811  CG  HIS A 373      20.317  28.468  40.770  1.00 22.07
ATOM   1812  ND1 HIS A 373      20.912  27.757  39.755  1.00 20.48
ATOM   1813  CE1 HIS A 373      21.909  27.049  40.247  1.00 22.93
ATOM   1814  NE2 HIS A 373      22.006  27.306  41.543  1.00 23.08
ATOM   1815  CD2 HIS A 373      21.023  28.190  41.893  1.00 22.70
ATOM   1816  C   HIS A 373      17.484  27.798  39.590  1.00 24.20
ATOM   1817  O   HIS A 373      17.168  28.148  38.476  1.00 23.16
ATOM   1818  N   PRO A 374      17.567  26.506  39.891  1.00 24.09
ATOM   1819  CA  PRO A 374      17.149  25.492  38.903  1.00 24.49
ATOM   1820  CB  PRO A 374      17.645  24.189  39.513  1.00 24.83
ATOM   1821  CG  PRO A 374      18.728  24.651  40.472  1.00 24.68
ATOM   1822  CD  PRO A 374      18.165  25.894  41.074  1.00 24.08
ATOM   1823  C   PRO A 374      15.636  25.472  38.641  1.00 24.59
ATOM   1824  O   PRO A 374      15.163  24.715  37.760  1.00 24.20
ATOM   1825  N   THR A 375      14.881  26.285  39.377  1.00 23.93
ATOM   1826  CA  THR A 375      13.470  26.405  39.105  1.00 24.98
ATOM   1827  CB  THR A 375      12.621  26.390  40.383  1.00 24.88
ATOM   1828  OG1 THR A 375      12.787  27.629  41.071  1.00 23.17
ATOM   1829  CG2 THR A 375      13.081  25.295  41.335  1.00 25.98
ATOM   1830  C   THR A 375      13.164  27.697  38.326  1.00 25.55
ATOM   1831  O   THR A 375      12.006  28.061  38.178  1.00 24.63
ATOM   1832  N   LYS A 376      14.196  28.382  37.833  1.00 26.33
ATOM   1833  CA  LYS A 376      13.978  29.595  37.067  1.00 27.42
ATOM   1834  CB  LYS A 376      14.861  30.767  37.564  1.00 27.88
ATOM   1835  CG  LYS A 376      14.881  30.998  39.078  1.00 29.07
ATOM   1836  CD  LYS A 376      13.588  31.571  39.603  1.00 28.35
ATOM   1837  CE  LYS A 376      13.627  31.712  41.155  1.00 28.75
ATOM   1838  NZ  LYS A 376      14.519  32.749  41.681  1.00 24.40
```

FIGURE 4 - 37

```
ATOM   1839  C   LYS A 376      14.290  29.324  35.610  1.00 27.14
ATOM   1840  O   LYS A 376      14.678  28.231  35.245  1.00 26.48
ATOM   1841  N   GLN A 377      14.135  30.344  34.786  1.00 27.78
ATOM   1842  CA  GLN A 377      14.443  30.231  33.362  1.00 28.81
ATOM   1843  CB  GLN A 377      14.203  31.568  32.656  1.00 30.16
ATOM   1844  CG  GLN A 377      15.192  31.912  31.517  1.00 34.69
ATOM   1845  CD  GLN A 377      14.951  31.106  30.267  1.00 36.84
ATOM   1846  OE1 GLN A 377      15.819  31.045  29.396  1.00 38.66
ATOM   1847  NE2 GLN A 377      13.781  30.455  30.186  1.00 36.35
ATOM   1848  C   GLN A 377      15.873  29.805  33.151  1.00 27.65
ATOM   1849  O   GLN A 377      16.803  30.263  33.849  1.00 27.16
ATOM   1850  N   TRP A 378      16.026  28.925  32.172  1.00 26.67
ATOM   1851  CA  TRP A 378      17.286  28.317  31.806  1.00 26.36
ATOM   1852  CB  TRP A 378      17.172  27.628  30.445  1.00 26.04
ATOM   1853  CG  TRP A 378      18.493  27.266  29.920  1.00 26.73
ATOM   1854  CD1 TRP A 378      19.125  27.824  28.862  1.00 27.65
ATOM   1855  NE1 TRP A 378      20.351  27.235  28.670  1.00 26.88
ATOM   1856  CE2 TRP A 378      20.542  26.292  29.644  1.00 28.04
ATOM   1857  CD2 TRP A 378      19.395  26.291  30.455  1.00 26.48
ATOM   1858  CE3 TRP A 378      19.340  25.403  31.532  1.00 28.71
ATOM   1859  CZ3 TRP A 378      20.410  24.573  31.764  1.00 28.65
ATOM   1860  CH2 TRP A 378      21.539  24.604  30.941  1.00 29.65
ATOM   1861  CZ2 TRP A 378      21.626  25.456  29.879  1.00 28.26
ATOM   1862  C   TRP A 378      18.459  29.270  31.756  1.00 26.37
ATOM   1863  O   TRP A 378      19.497  28.967  32.309  1.00 26.75
ATOM   1864  N   LEU A 379      18.330  30.386  31.055  1.00 26.03
ATOM   1865  CA  LEU A 379      19.446  31.325  30.962  1.00 26.34
ATOM   1866  CB  LEU A 379      19.112  32.480  30.006  1.00 26.31
ATOM   1867  CG  LEU A 379      19.035  32.021  28.545  1.00 28.60
ATOM   1868  CD1 LEU A 379      18.549  33.121  27.593  1.00 29.05
ATOM   1869  CD2 LEU A 379      20.426  31.515  28.102  1.00 30.40
ATOM   1870  C   LEU A 379      19.890  31.854  32.347  1.00 26.00
ATOM   1871  O   LEU A 379      21.073  32.092  32.569  1.00 24.91
ATOM   1872  N   VAL A 380      18.930  32.043  33.250  1.00 25.74
ATOM   1873  CA  VAL A 380      19.212  32.492  34.598  1.00 26.12
ATOM   1874  CB  VAL A 380      17.899  32.907  35.299  1.00 26.51
ATOM   1875  CG1 VAL A 380      18.130  33.253  36.761  1.00 27.24
ATOM   1876  CG2 VAL A 380      17.275  34.110  34.592  1.00 26.66
ATOM   1877  C   VAL A 380      19.933  31.371  35.362  1.00 25.88
ATOM   1878  O   VAL A 380      21.033  31.575  35.912  1.00 25.41
ATOM   1879  N   HIS A 381      19.309  30.187  35.374  1.00 26.19
ATOM   1880  CA  HIS A 381      19.850  29.009  36.040  1.00 25.70
ATOM   1881  CB  HIS A 381      18.887  27.811  35.900  1.00 27.02
ATOM   1882  CG  HIS A 381      19.496  26.498  36.294  1.00 28.48
ATOM   1883  ND1 HIS A 381      20.382  26.369  37.348  1.00 31.18
ATOM   1884  CE1 HIS A 381      20.764  25.105  37.447  1.00 32.99
ATOM   1885  NE2 HIS A 381      20.146  24.406  36.508  1.00 31.47
ATOM   1886  CD2 HIS A 381      19.341  25.252  35.779  1.00 30.38
ATOM   1887  C   HIS A 381      21.220  28.666  35.507  1.00 25.07
ATOM   1888  O   HIS A 381      22.129  28.297  36.242  1.00 23.17
ATOM   1889  N   SER A 382      21.384  28.861  34.209  1.00 24.96
ATOM   1890  CA  SER A 382      22.631  28.554  33.552  1.00 24.92
ATOM   1891  CB  SER A 382      22.475  28.722  32.031  1.00 25.20
ATOM   1892  OG  SER A 382      23.721  28.448  31.450  1.00 27.04
ATOM   1893  C   SER A 382      23.705  29.501  34.047  1.00 24.06
ATOM   1894  O   SER A 382      24.825  29.106  34.351  1.00 22.47
ATOM   1895  N   ARG A 383      23.361  30.778  34.117  1.00 24.06
```

FIGURE 4 - 38

```
ATOM   1896  CA  ARG A 383      24.325  31.752  34.635  1.00 24.23
ATOM   1897  CB  ARG A 383      23.724  33.156  34.501  1.00 24.39
ATOM   1898  CG  ARG A 383      24.654  34.260  34.885  1.00 25.79
ATOM   1899  CD  ARG A 383      24.163  35.677  34.448  1.00 27.41
ATOM   1900  NE  ARG A 383      25.109  36.668  34.918  1.00 28.29
ATOM   1901  CZ  ARG A 383      25.121  37.948  34.578  1.00 31.93
ATOM   1902  NH1 ARG A 383      24.234  38.449  33.727  1.00 29.79
ATOM   1903  NH2 ARG A 383      26.042  38.734  35.109  1.00 33.03
ATOM   1904  C   ARG A 383      24.728  31.466  36.116  1.00 23.58
ATOM   1905  O   ARG A 383      25.921  31.525  36.513  1.00 22.76
ATOM   1906  N   TRP A 384      23.745  31.170  36.951  1.00 22.86
ATOM   1907  CA  TRP A 384      24.062  30.890  38.348  1.00 23.10
ATOM   1908  CB  TRP A 384      22.796  30.648  39.185  1.00 23.10
ATOM   1909  CG  TRP A 384      22.065  31.887  39.563  1.00 22.04
ATOM   1910  CD1 TRP A 384      20.809  32.237  39.193  1.00 22.49
ATOM   1911  NE1 TRP A 384      20.484  33.460  39.724  1.00 21.98
ATOM   1912  CE2 TRP A 384      21.530  33.906  40.473  1.00 22.67
ATOM   1913  CD2 TRP A 384      22.545  32.935  40.391  1.00 22.06
ATOM   1914  CE3 TRP A 384      23.749  33.168  41.065  1.00 22.15
ATOM   1915  CZ3 TRP A 384      23.887  34.314  41.792  1.00 23.76
ATOM   1916  CH2 TRP A 384      22.856  35.264  41.863  1.00 22.86
ATOM   1917  CZ2 TRP A 384      21.671  35.080  41.218  1.00 23.85
ATOM   1918  C   TRP A 384      24.974  29.656  38.442  1.00 23.45
ATOM   1919  O   TRP A 384      25.929  29.614  39.239  1.00 22.51
ATOM   1920  N   THR A 385      24.694  28.661  37.613  1.00 23.20
ATOM   1921  CA  THR A 385      25.471  27.418  37.649  1.00 23.79
ATOM   1922  CB  THR A 385      24.897  26.393  36.681  1.00 23.45
ATOM   1923  OG1 THR A 385      23.573  26.023  37.093  1.00 21.43
ATOM   1924  CG2 THR A 385      25.711  25.111  36.762  1.00 24.20
ATOM   1925  C   THR A 385      26.930  27.657  37.326  1.00 24.71
ATOM   1926  O   THR A 385      27.846  27.154  38.011  1.00 25.00
ATOM   1927  N   LYS A 386      27.147  28.444  36.286  1.00 25.34
ATOM   1928  CA  LYS A 386      28.498  28.772  35.861  1.00 26.18
ATOM   1929  CB  LYS A 386      28.507  29.574  34.566  1.00 26.86
ATOM   1930  CG  LYS A 386      27.867  28.840  33.394  1.00 32.40
ATOM   1931  CD  LYS A 386      28.372  27.383  33.297  1.00 37.67
ATOM   1932  CE  LYS A 386      27.330  26.377  32.746  1.00 40.90
ATOM   1933  NZ  LYS A 386      27.991  25.113  32.232  1.00 42.85
ATOM   1934  C   LYS A 386      29.215  29.531  36.927  1.00 24.84
ATOM   1935  O   LYS A 386      30.392  29.290  37.160  1.00 24.54
ATOM   1936  N   ALA A 387      28.524  30.449  37.581  1.00 24.06
ATOM   1937  CA  ALA A 387      29.169  31.178  38.647  1.00 24.19
ATOM   1938  CB  ALA A 387      28.305  32.284  39.125  1.00 24.57
ATOM   1939  C   ALA A 387      29.539  30.228  39.820  1.00 24.51
ATOM   1940  O   ALA A 387      30.608  30.331  40.397  1.00 22.98
ATOM   1941  N   LEU A 388      28.645  29.325  40.205  1.00 25.08
ATOM   1942  CA  LEU A 388      28.989  28.421  41.297  1.00 25.69
ATOM   1943  CB  LEU A 388      27.813  27.550  41.681  1.00 25.56
ATOM   1944  CG  LEU A 388      28.004  26.711  42.937  1.00 26.22
ATOM   1945  CD1 LEU A 388      28.296  27.577  44.166  1.00 24.97
ATOM   1946  CD2 LEU A 388      26.752  25.845  43.136  1.00 27.36
ATOM   1947  C   LEU A 388      30.186  27.556  40.875  1.00 25.96
ATOM   1948  O   LEU A 388      31.130  27.339  41.645  1.00 24.98
ATOM   1949  N   MET A 389      30.160  27.053  39.649  1.00 26.68
ATOM   1950  CA  MET A 389      31.315  26.270  39.163  1.00 27.11
ATOM   1951  CB  MET A 389      31.230  26.036  37.662  1.00 27.58
ATOM   1952  CG  MET A 389      30.391  24.910  37.229  1.00 31.62
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FIGURE 4 - 39

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ATOM   1953  SD  MET A 389      30.625  24.733  35.417  1.00 41.06
ATOM   1954  CE  MET A 389      29.044  25.100  34.985  1.00 40.20
ATOM   1955  C   MET A 389      32.621  27.000  39.343  1.00 26.85
ATOM   1956  O   MET A 389      33.609  26.454  39.820  1.00 25.99
ATOM   1957  N   GLU A 390      32.662  28.227  38.841  1.00 26.88
ATOM   1958  CA  GLU A 390      33.872  28.995  38.942  1.00 27.32
ATOM   1959  CB  GLU A 390      33.702  30.361  38.300  1.00 27.79
ATOM   1960  CG  GLU A 390      34.970  31.173  38.356  1.00 33.00
ATOM   1961  CD  GLU A 390      35.958  30.801  37.252  1.00 37.88
ATOM   1962  OE1 GLU A 390      36.515  29.678  37.263  1.00 39.61
ATOM   1963  OE2 GLU A 390      36.161  31.643  36.344  1.00 45.53
ATOM   1964  C   GLU A 390      34.261  29.143  40.418  1.00 26.07
ATOM   1965  O   GLU A 390      35.441  29.092  40.770  1.00 25.12
ATOM   1966  N   GLU A 391      33.284  29.323  41.288  1.00 23.94
ATOM   1967  CA  GLU A 391      33.623  29.458  42.705  1.00 24.41
ATOM   1968  CB  GLU A 391      32.372  29.923  43.485  1.00 24.12
ATOM   1969  CG  GLU A 391      32.632  30.313  44.912  1.00 25.04
ATOM   1970  CD  GLU A 391      31.414  30.952  45.578  1.00 25.32
ATOM   1971  OE1 GLU A 391      30.907  31.979  45.065  1.00 23.43
ATOM   1972  OE2 GLU A 391      30.970  30.413  46.597  1.00 22.30
ATOM   1973  C   GLU A 391      34.228  28.153  43.275  1.00 23.49
ATOM   1974  O   GLU A 391      35.221  28.166  43.991  1.00 23.27
ATOM   1975  N   PHE A 392      33.626  27.022  42.939  1.00 24.07
ATOM   1976  CA  PHE A 392      34.155  25.719  43.336  1.00 24.96
ATOM   1977  CB  PHE A 392      33.234  24.584  42.832  1.00 24.85
ATOM   1978  CG  PHE A 392      31.924  24.411  43.615  1.00 26.39
ATOM   1979  CD1 PHE A 392      31.693  25.070  44.819  1.00 27.69
ATOM   1980  CE1 PHE A 392      30.503  24.883  45.527  1.00 28.48
ATOM   1981  CZ  PHE A 392      29.538  24.056  45.044  1.00 29.03
ATOM   1982  CE2 PHE A 392      29.736  23.387  43.846  1.00 26.93
ATOM   1983  CD2 PHE A 392      30.925  23.578  43.132  1.00 27.48
ATOM   1984  C   PHE A 392      35.572  25.524  42.764  1.00 25.22
ATOM   1985  O   PHE A 392      36.489  25.045  43.460  1.00 26.06
ATOM   1986  N   PHE A 393      35.769  25.906  41.507  1.00 25.54
ATOM   1987  CA  PHE A 393      37.081  25.753  40.874  1.00 26.62
ATOM   1988  CB  PHE A 393      37.081  26.137  39.371  1.00 26.72
ATOM   1989  CG  PHE A 393      36.338  25.169  38.469  1.00 28.49
ATOM   1990  CD1 PHE A 393      36.074  23.867  38.866  1.00 31.86
ATOM   1991  CE1 PHE A 393      35.420  22.996  38.025  1.00 33.03
ATOM   1992  CZ  PHE A 393      35.000  23.418  36.768  1.00 32.91
ATOM   1993  CE2 PHE A 393      35.274  24.695  36.349  1.00 31.80
ATOM   1994  CD2 PHE A 393      35.936  25.567  37.196  1.00 30.44
ATOM   1995  C   PHE A 393      38.101  26.598  41.612  1.00 26.66
ATOM   1996  O   PHE A 393      39.242  26.159  41.793  1.00 26.56
ATOM   1997  N   ARG A 394      37.731  27.805  42.022  1.00 26.47
ATOM   1998  CA  ARG A 394      38.669  28.608  42.828  1.00 27.94
ATOM   1999  CB  ARG A 394      38.159  30.033  43.030  1.00 28.25
ATOM   2000  CG  ARG A 394      37.794  30.694  41.700  1.00 32.07
ATOM   2001  CD  ARG A 394      37.926  32.197  41.679  1.00 36.10
ATOM   2002  NE  ARG A 394      37.571  32.774  40.383  1.00 38.32
ATOM   2003  CZ  ARG A 394      37.115  34.011  40.216  1.00 39.49
ATOM   2004  NH1 ARG A 394      36.949  34.816  41.264  1.00 38.49
ATOM   2005  NH2 ARG A 394      36.828  34.442  38.996  1.00 40.53
ATOM   2006  C   ARG A 394      38.975  27.930  44.187  1.00 27.72
ATOM   2007  O   ARG A 394      40.094  28.022  44.689  1.00 27.82
ATOM   2008  N   GLN A 395      38.013  27.208  44.752  1.00 26.72
ATOM   2009  CA  GLN A 395      38.282  26.496  45.989  1.00 27.02
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FIGURE 4 - 40

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ATOM   2010  CB  GLN A 395      37.009  25.911  46.602  1.00 25.76
ATOM   2011  CG  GLN A 395      37.356  24.927  47.720  1.00 24.09
ATOM   2012  CD  GLN A 395      36.161  24.376  48.449  1.00 21.03
ATOM   2013  OE1 GLN A 395      35.252  25.136  48.811  1.00 23.00
ATOM   2014  NE2 GLN A 395      36.131  23.065  48.642  1.00 14.40
ATOM   2015  C   GLN A 395      39.281  25.352  45.694  1.00 28.12
ATOM   2016  O   GLN A 395      40.242  25.101  46.436  1.00 27.34
ATOM   2017  N   GLY A 396      39.031  24.663  44.591  1.00 30.14
ATOM   2018  CA  GLY A 396      39.897  23.580  44.168  1.00 31.76
ATOM   2019  C   GLY A 396      41.307  24.084  43.979  1.00 32.83
ATOM   2020  O   GLY A 396      42.263  23.416  44.326  1.00 32.79
ATOM   2021  N   ASP A 397      41.434  25.275  43.403  1.00 33.94
ATOM   2022  N   ASP A 397      41.434  25.274  43.401  1.00 33.94
ATOM   2023  CA  ASP A 397      42.747  25.884  43.203  1.00 33.90
ATOM   2024  CA  ASP A 397      42.747  25.885  43.203  1.00 33.90
ATOM   2025  CB  ASP A 397      42.609  27.263  42.551  1.00 33.91
ATOM   2026  CG  ASP A 397      42.238  27.189  41.061  1.00 34.42
ATOM   2027  OD1 ASP A 397      42.365  26.116  40.432  1.00 32.84
ATOM   2028  OD2 ASP A 397      41.786  28.181  40.449  1.00 35.45
ATOM   2029  C   ASP A 397      43.472  26.031  44.548  1.00 33.83
ATOM   2030  O   ASP A 397      44.669  25.688  44.681  1.00 32.98
ATOM   2031  N   LYS A 398      42.758  26.564  45.543  1.00 33.23
ATOM   2032  CA  LYS A 398      43.348  26.760  46.855  1.00 33.66
ATOM   2033  CB  LYS A 398      42.409  27.521  47.782  1.00 33.96
ATOM   2034  CG  LYS A 398      42.119  28.910  47.334  1.00 37.00
ATOM   2035  CD  LYS A 398      41.189  29.576  48.313  1.00 41.20
ATOM   2036  CE  LYS A 398      40.895  31.018  47.947  1.00 42.84
ATOM   2037  NZ  LYS A 398      39.731  31.425  48.802  1.00 45.52
ATOM   2038  C   LYS A 398      43.682  25.428  47.483  1.00 32.68
ATOM   2039  O   LYS A 398      44.656  25.296  48.171  1.00 31.74
ATOM   2040  N   GLU A 399      42.842  24.439  47.254  1.00 33.10
ATOM   2041  CA  GLU A 399      43.061  23.154  47.860  1.00 33.54
ATOM   2042  CB  GLU A 399      41.900  22.224  47.541  1.00 33.88
ATOM   2043  CG  GLU A 399      40.696  22.391  48.469  1.00 33.67
ATOM   2044  CD  GLU A 399      39.453  21.710  47.946  1.00 32.76
ATOM   2045  OE1 GLU A 399      39.406  21.407  46.746  1.00 34.24
ATOM   2046  OE2 GLU A 399      38.510  21.476  48.722  1.00 33.16
ATOM   2047  C   GLU A 399      44.400  22.609  47.359  1.00 34.41
ATOM   2048  O   GLU A 399      45.109  21.899  48.073  1.00 33.63
ATOM   2049  N   ALA A 400      44.791  23.003  46.158  1.00 35.14
ATOM   2050  CA  ALA A 400      46.049  22.502  45.616  1.00 36.07
ATOM   2051  CB  ALA A 400      45.998  22.465  44.100  1.00 35.95
ATOM   2052  C   ALA A 400      47.238  23.322  46.111  1.00 36.46
ATOM   2053  O   ALA A 400      48.269  22.761  46.446  1.00 36.92
ATOM   2054  N   GLU A 401      47.078  24.641  46.170  1.00 37.47
ATOM   2055  CA  GLU A 401      48.105  25.552  46.659  1.00 38.37
ATOM   2056  CB  GLU A 401      47.547  26.973  46.741  1.00 38.85
ATOM   2057  CG  GLU A 401      48.538  28.104  46.509  1.00 41.02
ATOM   2058  CD  GLU A 401      47.928  29.301  45.779  1.00 43.99
ATOM   2059  OE1 GLU A 401      46.802  29.178  45.236  1.00 46.97
ATOM   2060  OE2 GLU A 401      48.589  30.370  45.730  1.00 46.19
ATOM   2061  C   GLU A 401      48.548  25.125  48.046  1.00 38.98
ATOM   2062  O   GLU A 401      49.674  25.427  48.456  1.00 39.61
ATOM   2063  N   LEU A 402      47.676  24.413  48.766  1.00 39.19
ATOM   2064  CA  LEU A 402      47.981  23.982  50.127  1.00 39.54
ATOM   2065  CB  LEU A 402      46.758  24.135  51.021  1.00 39.28
ATOM   2066  CG  LEU A 402      46.095  25.489  51.135  1.00 39.06
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FIGURE 4 - 41

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ATOM   2067  CD1 LEU A 402      44.828  25.329  51.962  1.00 39.80
ATOM   2068  CD2 LEU A 402      47.010  26.503  51.759  1.00 38.80
ATOM   2069  C   LEU A 402      48.406  22.526  50.206  1.00 40.09
ATOM   2070  O   LEU A 402      48.529  21.976  51.296  1.00 39.33
ATOM   2071  N   GLY A 403      48.598  21.899  49.053  1.00 41.17
ATOM   2072  CA  GLY A 403      48.964  20.497  49.009  1.00 41.98
ATOM   2073  C   GLY A 403      47.817  19.634  49.496  1.00 42.83
ATOM   2074  O   GLY A 403      48.003  18.649  50.210  1.00 42.85
ATOM   2075  N   LEU A 404      46.611  20.004  49.097  1.00 44.00
ATOM   2076  CA  LEU A 404      45.430  19.283  49.516  1.00 44.84
ATOM   2077  CB  LEU A 404      44.473  20.259  50.203  1.00 44.91
ATOM   2078  CG  LEU A 404      43.873  19.866  51.543  1.00 44.38
ATOM   2079  CD1 LEU A 404      44.972  19.526  52.530  1.00 44.94
ATOM   2080  CD2 LEU A 404      43.030  21.022  52.046  1.00 45.04
ATOM   2081  C   LEU A 404      44.743  18.658  48.313  1.00 46.09
ATOM   2082  O   LEU A 404      44.833  19.192  47.210  1.00 46.08
ATOM   2083  N   PRO A 405      44.094  17.511  48.517  1.00 47.73
ATOM   2084  CA  PRO A 405      43.272  16.860  47.491  1.00 48.96
ATOM   2085  CB  PRO A 405      42.383  15.934  48.323  1.00 48.82
ATOM   2086  CG  PRO A 405      43.275  15.497  49.417  1.00 48.16
ATOM   2087  CD  PRO A 405      44.152  16.695  49.742  1.00 47.92
ATOM   2088  C   PRO A 405      42.432  17.818  46.610  1.00 50.43
ATOM   2089  O   PRO A 405      42.956  18.823  46.130  1.00 50.88
ATOM   2090  N   PHE A 406      41.158  17.516  46.388  1.00 52.14
ATOM   2091  CA  PHE A 406      40.378  18.271  45.410  1.00 53.38
ATOM   2092  CB  PHE A 406      40.740  17.795  44.009  1.00 53.74
ATOM   2093  CG  PHE A 406      41.261  18.871  43.121  1.00 55.29
ATOM   2094  CD1 PHE A 406      42.618  19.099  43.028  1.00 56.77
ATOM   2095  CE1 PHE A 406      43.113  20.081  42.213  1.00 56.93
ATOM   2096  CZ  PHE A 406      42.260  20.854  41.479  1.00 57.15
ATOM   2097  CE2 PHE A 406      40.906  20.636  41.554  1.00 57.40
ATOM   2098  CD2 PHE A 406      40.406  19.646  42.372  1.00 56.81
ATOM   2099  C   PHE A 406      38.918  17.997  45.570  1.00 53.95
ATOM   2100  O   PHE A 406      38.396  17.095  44.919  1.00 54.89
ATOM   2101  N   SER A 407      38.247  18.770  46.411  1.00 54.32
ATOM   2102  CA  SER A 407      36.826  18.574  46.622  1.00 54.37
ATOM   2103  CB  SER A 407      36.226  19.778  47.336  1.00 54.31
ATOM   2104  OG  SER A 407      36.585  19.704  48.707  1.00 54.30
ATOM   2105  C   SER A 407      36.131  18.283  45.300  1.00 54.53
ATOM   2106  O   SER A 407      36.508  18.820  44.258  1.00 54.76
ATOM   2107  N   PRO A 408      35.189  17.348  45.328  1.00 54.52
ATOM   2108  CA  PRO A 408      34.378  17.030  44.160  1.00 54.44
ATOM   2109  CB  PRO A 408      33.223  16.238  44.762  1.00 54.49
ATOM   2110  CG  PRO A 408      33.854  15.490  45.864  1.00 55.10
ATOM   2111  CD  PRO A 408      34.891  16.443  46.447  1.00 54.92
ATOM   2112  C   PRO A 408      33.843  18.249  43.429  1.00 54.20
ATOM   2113  O   PRO A 408      33.377  19.216  44.046  1.00 54.07
ATOM   2114  N   LEU A 409      33.926  18.178  42.104  1.00 53.81
ATOM   2115  CA  LEU A 409      33.425  19.219  41.227  1.00 53.49
ATOM   2116  CB  LEU A 409      31.924  19.452  41.454  1.00 53.79
ATOM   2117  CG  LEU A 409      31.088  18.262  40.982  1.00 54.46
ATOM   2118  CD1 LEU A 409      31.371  17.972  39.499  1.00 55.74
ATOM   2119  CD2 LEU A 409      31.375  17.023  41.832  1.00 55.05
ATOM   2120  C   LEU A 409      34.222  20.493  41.399  1.00 52.71
ATOM   2121  O   LEU A 409      33.802  21.540  40.954  1.00 52.70
ATOM   2122  N   CYS A 410      35.393  20.390  42.012  1.00 51.97
ATOM   2123  CA  CYS A 410      36.268  21.545  42.147  1.00 51.53
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FIGURE 4 - 42

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ATOM   2124  CB  CYS A 410      36.720  21.739  43.600  1.00 51.24
ATOM   2125  SG  CYS A 410      35.406  22.078  44.816  1.00 49.97
ATOM   2126  C   CYS A 410      37.494  21.422  41.223  1.00 51.90
ATOM   2127  O   CYS A 410      38.328  22.334  41.182  1.00 51.42
ATOM   2128  N   ASP A 411      37.611  20.305  40.495  1.00 52.17
ATOM   2129  CA  ASP A 411      38.732  20.127  39.559  1.00 52.42
ATOM   2130  CB  ASP A 411      39.188  18.671  39.469  1.00 52.63
ATOM   2131  CG  ASP A 411      40.535  18.539  38.788  1.00 52.94
ATOM   2132  OD1 ASP A 411      40.724  19.172  37.726  1.00 53.03
ATOM   2133  OD2 ASP A 411      41.471  17.854  39.251  1.00 54.40
ATOM   2134  C   ASP A 411      38.370  20.647  38.178  1.00 52.49
ATOM   2135  O   ASP A 411      37.556  20.056  37.471  1.00 52.50
ATOM   2136  N   ARG A 412      39.004  21.749  37.797  1.00 52.76
ATOM   2137  CA  ARG A 412      38.685  22.428  36.537  1.00 53.06
ATOM   2138  CB  ARG A 412      39.369  23.792  36.447  1.00 53.21
ATOM   2139  CG  ARG A 412      40.050  24.293  37.682  1.00 53.57
ATOM   2140  CD  ARG A 412      41.130  25.315  37.357  1.00 54.24
ATOM   2141  NE  ARG A 412      40.986  26.521  38.162  1.00 53.43
ATOM   2142  CZ  ARG A 412      40.144  27.501  37.880  1.00 53.14
ATOM   2143  NH1 ARG A 412      39.381  27.429  36.799  1.00 53.72
ATOM   2144  NH2 ARG A 412      40.056  28.557  38.678  1.00 53.07
ATOM   2145  C   ARG A 412      39.064  21.695  35.265  1.00 53.01
ATOM   2146  O   ARG A 412      38.864  22.229  34.177  1.00 52.97
ATOM   2147  N   THR A 413      39.609  20.492  35.376  1.00 53.17
ATOM   2148  CA  THR A 413      40.013  19.762  34.188  1.00 53.15
ATOM   2149  CB  THR A 413      41.357  19.077  34.408  1.00 53.01
ATOM   2150  OG1 THR A 413      41.292  18.226  35.560  1.00 52.46
ATOM   2151  CG2 THR A 413      42.435  20.104  34.736  1.00 52.82
ATOM   2152  C   THR A 413      38.960  18.728  33.908  1.00 53.51
ATOM   2153  O   THR A 413      39.139  17.834  33.092  1.00 54.18
ATOM   2154  N   SER A 414      37.836  18.863  34.584  1.00 53.93
ATOM   2155  CA  SER A 414      36.797  17.879  34.448  1.00 53.99
ATOM   2156  CB  SER A 414      36.759  16.988  35.695  1.00 54.14
ATOM   2157  OG  SER A 414      36.053  17.619  36.757  1.00 54.31
ATOM   2158  C   SER A 414      35.459  18.551  34.283  1.00 53.74
ATOM   2159  O   SER A 414      35.105  19.429  35.064  1.00 54.27
ATOM   2160  N   THR A 415      34.739  18.193  33.229  1.00 53.20
ATOM   2161  CA  THR A 415      33.338  18.552  33.194  1.00 52.73
ATOM   2162  CB  THR A 415      32.857  19.197  31.898  1.00 52.95
ATOM   2163  OG1 THR A 415      33.710  20.279  31.522  1.00 54.64
ATOM   2164  CG2 THR A 415      31.486  19.853  32.145  1.00 53.22
ATOM   2165  C   THR A 415      32.580  17.268  33.342  1.00 51.49
ATOM   2166  O   THR A 415      32.804  16.309  32.589  1.00 51.04
ATOM   2167  N   LEU A 416      31.702  17.283  34.338  1.00 49.74
ATOM   2168  CA  LEU A 416      30.696  16.261  34.557  1.00 47.88
ATOM   2169  CB  LEU A 416      31.293  14.998  35.158  1.00 47.94
ATOM   2170  CG  LEU A 416      32.135  14.172  34.190  1.00 48.59
ATOM   2171  CD1 LEU A 416      32.456  12.856  34.831  1.00 49.29
ATOM   2172  CD2 LEU A 416      31.439  13.923  32.815  1.00 49.43
ATOM   2173  C   LEU A 416      29.715  16.968  35.482  1.00 46.04
ATOM   2174  O   LEU A 416      28.987  16.346  36.269  1.00 45.62
ATOM   2175  N   VAL A 417      29.682  18.296  35.334  1.00 43.74
ATOM   2176  CA  VAL A 417      28.835  19.129  36.157  1.00 41.97
ATOM   2177  CB  VAL A 417      29.188  20.662  36.109  1.00 42.45
ATOM   2178  CG1 VAL A 417      30.630  20.896  35.701  1.00 42.88
ATOM   2179  CG2 VAL A 417      28.243  21.407  35.185  1.00 42.59
ATOM   2180  C   VAL A 417      27.444  18.929  35.649  1.00 39.98
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FIGURE 4 - 43

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ATOM   2181  O   VAL A 417      26.505  18.941  36.419  1.00 39.37
ATOM   2182  N   ALA A 418      27.297  18.743  34.344  1.00 37.66
ATOM   2183  CA  ALA A 418      25.971  18.530  33.812  1.00 36.10
ATOM   2184  CB  ALA A 418      26.006  18.312  32.319  1.00 36.69
ATOM   2185  C   ALA A 418      25.413  17.311  34.522  1.00 34.62
ATOM   2186  O   ALA A 418      24.294  17.320  35.020  1.00 33.90
ATOM   2187  N   GLN A 419      26.211  16.257  34.567  1.00 33.43
ATOM   2188  CA  GLN A 419      25.801  15.039  35.264  1.00 32.58
ATOM   2189  CB  GLN A 419      26.960  14.030  35.328  1.00 32.55
ATOM   2190  CG  GLN A 419      26.881  12.962  34.297  1.00 30.63
ATOM   2191  CD  GLN A 419      28.173  12.188  34.143  1.00 28.63
ATOM   2192  OE1 GLN A 419      28.966  12.088  35.080  1.00 24.69
ATOM   2193  NE2 GLN A 419      28.376  11.612  32.960  1.00 26.19
ATOM   2194  C   GLN A 419      25.341  15.401  36.660  1.00 31.23
ATOM   2195  O   GLN A 419      24.214  15.128  37.050  1.00 30.47
ATOM   2196  N   SER A 420      26.217  16.057  37.398  1.00 30.40
ATOM   2197  CA  SER A 420      25.907  16.442  38.758  1.00 29.60
ATOM   2198  CB  SER A 420      27.086  17.161  39.361  1.00 30.20
ATOM   2199  OG  SER A 420      28.073  16.216  39.697  1.00 30.67
ATOM   2200  C   SER A 420      24.705  17.320  38.903  1.00 28.74
ATOM   2201  O   SER A 420      23.915  17.148  39.832  1.00 27.13
ATOM   2202  N   GLN A 421      24.534  18.249  37.971  1.00 28.14
ATOM   2203  CA  GLN A 421      23.463  19.205  38.113  1.00 28.12
ATOM   2204  CB  GLN A 421      23.529  20.346  37.061  1.00 27.93
ATOM   2205  CG  GLN A 421      24.376  21.536  37.451  1.00 28.62
ATOM   2206  CD  GLN A 421      23.970  22.152  38.794  1.00 27.82
ATOM   2207  OE1 GLN A 421      24.180  21.545  39.868  1.00 24.84
ATOM   2208  NE2 GLN A 421      23.382  23.335  38.738  1.00 27.34
ATOM   2209  C   GLN A 421      22.159  18.474  37.989  1.00 27.78
ATOM   2210  O   GLN A 421      21.189  18.820  38.645  1.00 27.88
ATOM   2211  N   ILE A 422      22.134  17.490  37.107  1.00 27.53
ATOM   2212  CA  ILE A 422      20.952  16.678  36.920  1.00 27.69
ATOM   2213  CB  ILE A 422      21.206  15.628  35.821  1.00 28.13
ATOM   2214  CG1 ILE A 422      20.965  16.238  34.443  1.00 29.25
ATOM   2215  CD1 ILE A 422      21.794  15.609  33.329  1.00 28.39
ATOM   2216  CG2 ILE A 422      20.274  14.425  36.000  1.00 29.39
ATOM   2217  C   ILE A 422      20.605  15.996  38.231  1.00 27.20
ATOM   2218  O   ILE A 422      19.454  16.006  38.654  1.00 27.05
ATOM   2219  N   GLY A 423      21.609  15.384  38.859  1.00 27.02
ATOM   2220  CA  GLY A 423      21.420  14.763  40.162  1.00 26.61
ATOM   2221  C   GLY A 423      20.897  15.751  41.188  1.00 26.37
ATOM   2222  O   GLY A 423      19.964  15.449  41.950  1.00 26.24
ATOM   2223  N   PHE A 424      21.507  16.935  41.214  1.00 25.42
ATOM   2224  CA  PHE A 424      21.141  17.969  42.182  1.00 26.20
ATOM   2225  CB  PHE A 424      22.074  19.185  42.005  1.00 26.15
ATOM   2226  CG  PHE A 424      21.747  20.357  42.874  1.00 27.29
ATOM   2227  CD1 PHE A 424      21.787  20.250  44.244  1.00 27.03
ATOM   2228  CE1 PHE A 424      21.539  21.346  45.031  1.00 26.58
ATOM   2229  CZ  PHE A 424      21.243  22.540  44.464  1.00 27.74
ATOM   2230  CE2 PHE A 424      21.204  22.670  43.096  1.00 29.45
ATOM   2231  CD2 PHE A 424      21.466  21.593  42.310  1.00 27.67
ATOM   2232  C   PHE A 424      19.684  18.355  42.033  1.00 25.88
ATOM   2233  O   PHE A 424      18.939  18.419  43.012  1.00 25.26
ATOM   2234  N   ILE A 425      19.247  18.579  40.796  1.00 25.85
ATOM   2235  CA  ILE A 425      17.856  18.932  40.564  1.00 26.20
ATOM   2236  CB  ILE A 425      17.649  19.290  39.083  1.00 27.05
ATOM   2237  CG1 ILE A 425      18.301  20.639  38.760  1.00 28.37
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FIGURE 4 - 44

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ATOM   2238  CD1 ILE A 425      18.443  20.933  37.291  1.00 29.34
ATOM   2239  CG2 ILE A 425      16.172  19.330  38.764  1.00 28.96
ATOM   2240  C   ILE A 425      16.915  17.805  40.961  1.00 26.48
ATOM   2241  O   ILE A 425      15.891  18.016  41.625  1.00 26.08
ATOM   2242  N   ASP A 426      17.244  16.588  40.550  1.00 26.32
ATOM   2243  CA  ASP A 426      16.340  15.502  40.806  1.00 26.90
ATOM   2244  CB  ASP A 426      16.759  14.305  40.008  1.00 27.65
ATOM   2245  CG  ASP A 426      15.743  13.216  40.086  1.00 31.92
ATOM   2246  OD1 ASP A 426      16.006  12.204  40.762  1.00 35.31
ATOM   2247  OD2 ASP A 426      14.617  13.320  39.547  1.00 38.28
ATOM   2248  C   ASP A 426      16.283  15.063  42.257  1.00 26.11
ATOM   2249  O   ASP A 426      15.222  14.805  42.791  1.00 25.25
ATOM   2250  N   PHE A 427      17.444  14.977  42.888  1.00 25.69
ATOM   2251  CA  PHE A 427      17.549  14.373  44.218  1.00 25.29
ATOM   2252  CB  PHE A 427      18.873  13.586  44.353  1.00 25.10
ATOM   2253  CG  PHE A 427      18.954  12.757  45.604  1.00 25.47
ATOM   2254  CD1 PHE A 427      17.898  11.963  45.966  1.00 22.33
ATOM   2255  CE1 PHE A 427      17.943  11.216  47.090  1.00 23.83
ATOM   2256  CZ  PHE A 427      19.046  11.233  47.894  1.00 23.70
ATOM   2257  CE2 PHE A 427      20.126  12.005  47.560  1.00 24.12
ATOM   2258  CD2 PHE A 427      20.081  12.782  46.420  1.00 26.51
ATOM   2259  C   PHE A 427      17.438  15.393  45.342  1.00 24.55
ATOM   2260  O   PHE A 427      16.931  15.076  46.395  1.00 23.30
ATOM   2261  N   ILE A 428      17.890  16.622  45.102  1.00 24.89
ATOM   2262  CA  ILE A 428      17.829  17.692  46.117  1.00 25.39
ATOM   2263  CB  ILE A 428      19.190  18.350  46.217  1.00 25.43
ATOM   2264  CG1 ILE A 428      20.291  17.290  46.353  1.00 28.14
ATOM   2265  CD1 ILE A 428      20.238  16.464  47.599  1.00 28.91
ATOM   2266  CG2 ILE A 428      19.190  19.356  47.363  1.00 26.62
ATOM   2267  C   ILE A 428      16.760  18.794  45.895  1.00 24.98
ATOM   2268  O   ILE A 428      15.906  19.067  46.770  1.00 24.03
ATOM   2269  N   VAL A 429      16.793  19.434  44.729  1.00 24.61
ATOM   2270  CA  VAL A 429      15.896  20.554  44.479  1.00 24.93
ATOM   2271  CB  VAL A 429      16.350  21.378  43.250  1.00 25.54
ATOM   2272  CG1 VAL A 429      15.480  22.583  43.093  1.00 26.22
ATOM   2273  CG2 VAL A 429      17.803  21.843  43.391  1.00 26.33
ATOM   2274  C   VAL A 429      14.405  20.215  44.340  1.00 25.23
ATOM   2275  O   VAL A 429      13.545  20.785  45.022  1.00 24.99
ATOM   2276  N   GLU A 430      14.075  19.282  43.467  1.00 25.90
ATOM   2277  CA  GLU A 430      12.674  18.960  43.266  1.00 26.40
ATOM   2278  CB  GLU A 430      12.524  17.944  42.133  1.00 27.12
ATOM   2279  CG  GLU A 430      11.089  17.737  41.701  1.00 29.69
ATOM   2280  CD  GLU A 430      10.370  16.732  42.551  1.00 33.39
ATOM   2281  OE1 GLU A 430      11.020  15.840  43.148  1.00 36.01
ATOM   2282  OE2 GLU A 430       9.128  16.846  42.630  1.00 39.64
ATOM   2283  C   GLU A 430      11.952  18.518  44.548  1.00 25.70
ATOM   2284  O   GLU A 430      10.867  19.000  44.825  1.00 24.21
ATOM   2285  N   PRO A 431      12.523  17.609  45.335  1.00 26.03
ATOM   2286  CA  PRO A 431      11.857  17.200  46.582  1.00 26.01
ATOM   2287  CB  PRO A 431      12.788  16.130  47.173  1.00 26.42
ATOM   2288  CG  PRO A 431      13.513  15.612  46.020  1.00 27.19
ATOM   2289  CD  PRO A 431      13.747  16.837  45.091  1.00 26.53
ATOM   2290  C   PRO A 431      11.689  18.346  47.537  1.00 25.99
ATOM   2291  O   PRO A 431      10.660  18.429  48.212  1.00 25.32
ATOM   2292  N   THR A 432      12.671  19.246  47.582  1.00 25.21
ATOM   2293  CA  THR A 432      12.528  20.395  48.433  1.00 24.48
ATOM   2294  CB  THR A 432      13.732  21.323  48.335  1.00 24.85
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FIGURE 4 - 45

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ATOM   2295  OG1 THR A 432      14.934  20.608  48.670  1.00 24.22
ATOM   2296  CG2 THR A 432      13.597  22.431  49.362  1.00 24.14
ATOM   2297  C   THR A 432      11.311  21.140  47.991  1.00 24.67
ATOM   2298  O   THR A 432      10.445  21.452  48.789  1.00 23.58
ATOM   2299  N   PHE A 433      11.264  21.472  46.709  1.00 25.28
ATOM   2300  CA  PHE A 433      10.130  22.221  46.196  1.00 25.98
ATOM   2301  CB  PHE A 433      10.385  22.775  44.780  1.00 26.39
ATOM   2302  CG  PHE A 433      11.108  24.083  44.800  1.00 25.14
ATOM   2303  CD1 PHE A 433      12.449  24.111  45.077  1.00 24.53
ATOM   2304  CE1 PHE A 433      13.133  25.306  45.165  1.00 27.01
ATOM   2305  CZ  PHE A 433      12.477  26.495  44.997  1.00 24.65
ATOM   2306  CE2 PHE A 433      11.112  26.492  44.738  1.00 26.84
ATOM   2307  CD2 PHE A 433      10.429  25.283  44.661  1.00 25.32
ATOM   2308  C   PHE A 433       8.825  21.404  46.315  1.00 26.92
ATOM   2309  O   PHE A 433       7.785  21.996  46.565  1.00 26.19
ATOM   2310  N   SER A 434       8.905  20.070  46.233  1.00 27.80
ATOM   2311  CA  SER A 434       7.715  19.214  46.392  1.00 29.40
ATOM   2312  CB  SER A 434       8.031  17.723  46.240  1.00 29.87
ATOM   2313  OG  SER A 434       7.891  17.322  44.916  1.00 33.52
ATOM   2314  C   SER A 434       7.038  19.351  47.734  1.00 28.71
ATOM   2315  O   SER A 434       5.849  19.620  47.803  1.00 28.35
ATOM   2316  N   VAL A 435       7.785  19.104  48.799  1.00 29.11
ATOM   2317  CA  VAL A 435       7.216  19.227  50.131  1.00 29.31
ATOM   2318  CB  VAL A 435       8.186  18.776  51.191  1.00 30.49
ATOM   2319  CG1 VAL A 435       7.558  18.919  52.546  1.00 30.54
ATOM   2320  CG2 VAL A 435       8.571  17.318  50.952  1.00 33.27
ATOM   2321  C   VAL A 435       6.861  20.638  50.457  1.00 28.00
ATOM   2322  O   VAL A 435       5.848  20.883  51.095  1.00 27.93
ATOM   2323  N   LEU A 436       7.700  21.583  50.057  1.00 27.08
ATOM   2324  CA  LEU A 436       7.415  22.973  50.389  1.00 26.78
ATOM   2325  CB  LEU A 436       8.419  23.939  49.748  1.00 27.01
ATOM   2326  CG  LEU A 436       8.106  25.396  50.085  1.00 26.44
ATOM   2327  CD1 LEU A 436       8.154  25.580  51.556  1.00 29.31
ATOM   2328  CD2 LEU A 436       9.098  26.361  49.434  1.00 27.11
ATOM   2329  C   LEU A 436       6.036  23.324  49.855  1.00 26.44
ATOM   2330  O   LEU A 436       5.190  23.866  50.559  1.00 25.12
ATOM   2331  N   THR A 437       5.831  23.002  48.589  1.00 27.01
ATOM   2332  CA  THR A 437       4.596  23.359  47.903  1.00 27.72
ATOM   2333  CB  THR A 437       4.735  23.044  46.389  1.00 28.13
ATOM   2334  OG1 THR A 437       5.880  23.744  45.855  1.00 26.85
ATOM   2335  CG2 THR A 437       3.532  23.586  45.605  1.00 28.78
ATOM   2336  C   THR A 437       3.427  22.615  48.539  1.00 28.50
ATOM   2337  O   THR A 437       2.374  23.197  48.782  1.00 28.06
ATOM   2338  N   ASP A 438       3.605  21.335  48.825  1.00 29.55
ATOM   2339  CA  ASP A 438       2.554  20.613  49.539  1.00 31.32
ATOM   2340  CB  ASP A 438       2.974  19.201  49.901  1.00 31.69
ATOM   2341  CG  ASP A 438       3.106  18.307  48.701  1.00 33.50
ATOM   2342  OD1 ASP A 438       2.735  18.720  47.586  1.00 34.62
ATOM   2343  OD2 ASP A 438       3.563  17.152  48.782  1.00 38.09
ATOM   2344  C   ASP A 438       2.230  21.344  50.823  1.00 32.02
ATOM   2345  O   ASP A 438       1.066  21.500  51.165  1.00 32.19
ATOM   2346  N   VAL A 439       3.267  21.807  51.529  1.00 32.56
ATOM   2347  CA  VAL A 439       3.073  22.495  52.795  1.00 33.01
ATOM   2348  CB  VAL A 439       4.386  22.993  53.387  1.00 33.82
ATOM   2349  CG1 VAL A 439       4.102  24.003  54.486  1.00 33.83
ATOM   2350  CG2 VAL A 439       5.231  21.841  53.877  1.00 33.91
ATOM   2351  C   VAL A 439       2.199  23.706  52.625  1.00 33.65
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FIGURE 4 - 46

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ATOM   2352  O   VAL A 439       1.291  23.951  53.425  1.00 32.87
ATOM   2353  N   ALA A 440       2.472  24.505  51.600  1.00 34.20
ATOM   2354  CA  ALA A 440       1.640  25.680  51.381  1.00 34.96
ATOM   2355  CB  ALA A 440       2.261  26.580  50.357  1.00 35.11
ATOM   2356  C   ALA A 440       0.222  25.293  50.938  1.00 35.91
ATOM   2357  O   ALA A 440      -0.776  25.843  51.417  1.00 35.09
ATOM   2358  N   GLU A 441       0.146  24.378  49.984  1.00 37.50
ATOM   2359  CA  GLU A 441      -1.138  24.001  49.406  1.00 39.09
ATOM   2360  CB  GLU A 441      -0.959  22.958  48.289  1.00 39.75
ATOM   2361  CG  GLU A 441      -1.117  21.493  48.697  1.00 42.74
ATOM   2362  CD  GLU A 441      -0.896  20.529  47.536  1.00 46.03
ATOM   2363  OE1 GLU A 441      -0.477  20.986  46.439  1.00 48.55
ATOM   2364  OE2 GLU A 441      -1.131  19.311  47.724  1.00 47.82
ATOM   2365  C   GLU A 441      -2.038  23.530  50.547  1.00 39.70
ATOM   2366  O   GLU A 441      -3.200  23.928  50.642  1.00 39.25
ATOM   2367  N   LYS A 442      -1.482  22.715  51.435  1.00 40.25
ATOM   2368  CA  LYS A 442      -2.202  22.329  52.629  1.00 41.17
ATOM   2369  CB  LYS A 442      -1.405  21.310  53.450  1.00 41.36
ATOM   2370  CG  LYS A 442      -1.280  19.944  52.734  1.00 43.20
ATOM   2371  CD  LYS A 442      -1.095  18.779  53.706  1.00 45.79
ATOM   2372  CE  LYS A 442      -1.214  17.398  53.024  1.00 47.24
ATOM   2373  NZ  LYS A 442      -1.312  16.276  54.041  1.00 47.79
ATOM   2374  C   LYS A 442      -2.616  23.544  53.469  1.00 41.44
ATOM   2375  O   LYS A 442      -3.813  23.789  53.632  1.00 41.32
ATOM   2376  N   SER A 443      -1.656  24.297  54.001  1.00 41.62
ATOM   2377  CA  SER A 443      -1.962  25.457  54.849  1.00 41.83
ATOM   2378  CB  SER A 443      -0.719  25.907  55.645  1.00 42.23
ATOM   2379  OG  SER A 443       0.087  24.810  56.080  1.00 39.59
ATOM   2380  C   SER A 443      -2.551  26.586  53.987  1.00 43.07
ATOM   2381  O   SER A 443      -3.748  26.601  53.743  1.00 45.27
ATOM   2382  N   VAL A 444      -1.749  27.505  53.485  1.00 44.00
ATOM   2383  CA  VAL A 444      -2.226  28.571  52.596  1.00 44.39
ATOM   2384  CB  VAL A 444      -3.608  29.137  52.940  1.00 44.96
ATOM   2385  CG1 VAL A 444      -3.980  30.212  51.902  1.00 45.97
ATOM   2386  CG2 VAL A 444      -4.691  28.052  52.941  1.00 43.82
ATOM   2387  C   VAL A 444      -1.247  29.705  52.637  1.00 44.70
ATOM   2388  O   VAL A 444      -0.052  29.461  52.780  1.00 45.36
ATOM   2481  N   VAL A 479      -0.965  27.131  43.786  1.00 45.15
ATOM   2482  CA  VAL A 479      -1.139  25.888  42.997  1.00 45.18
ATOM   2483  CB  VAL A 479      -2.540  25.283  43.139  1.00 45.69
ATOM   2484  CG1 VAL A 479      -2.445  23.779  42.915  1.00 46.93
ATOM   2485  CG2 VAL A 479      -3.192  25.580  44.509  1.00 46.69
ATOM   2486  C   VAL A 479      -0.852  25.995  41.468  1.00 43.92
ATOM   2487  O   VAL A 479      -0.472  25.029  40.804  1.00 42.82
ATOM   2488  N   SER A 480      -1.106  27.142  40.875  1.00 42.95
ATOM   2489  CA  SER A 480      -0.583  27.343  39.548  1.00 42.37
ATOM   2490  CB  SER A 480      -1.271  28.507  38.864  1.00 42.47
ATOM   2491  OG  SER A 480      -1.189  29.663  39.655  1.00 43.38
ATOM   2492  C   SER A 480       0.905  27.628  39.845  1.00 41.81
ATOM   2493  O   SER A 480       1.797  27.458  39.001  1.00 42.01
ATOM   2494  N   PHE A 481       1.158  28.026  41.084  1.00 40.36
ATOM   2495  CA  PHE A 481       2.515  28.210  41.568  1.00 40.02
ATOM   2496  CB  PHE A 481       2.471  28.396  43.078  1.00 40.28
ATOM   2497  CG  PHE A 481       3.821  28.437  43.713  1.00 44.16
ATOM   2498  CD1 PHE A 481       4.408  29.638  43.992  1.00 48.21
ATOM   2499  CE1 PHE A 481       5.656  29.688  44.567  1.00 50.87
ATOM   2500  CZ  PHE A 481       6.329  28.517  44.861  1.00 49.20
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FIGURE 4 - 47

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ATOM   2501  CE2 PHE A 481       5.746  27.321  44.592  1.00 48.33
ATOM   2502  CD2 PHE A 481       4.509  27.275  44.014  1.00 46.36
ATOM   2503  C   PHE A 481       3.357  26.985  41.269  1.00 38.33
ATOM   2504  O   PHE A 481       4.484  27.063  40.779  1.00 37.61
ATOM   2505  N   ARG A 482       2.781  25.832  41.563  1.00 36.99
ATOM   2506  CA  ARG A 482       3.472  24.583  41.361  1.00 35.80
ATOM   2507  CB  ARG A 482       2.680  23.463  42.003  1.00 36.00
ATOM   2508  CG  ARG A 482       2.649  22.203  41.237  1.00 38.09
ATOM   2509  CD  ARG A 482       2.604  20.952  42.086  1.00 41.99
ATOM   2510  NE  ARG A 482       1.946  21.138  43.382  1.00 43.63
ATOM   2511  CZ  ARG A 482       2.126  20.333  44.417  1.00 46.42
ATOM   2512  NH1 ARG A 482       2.912  19.273  44.292  1.00 48.50
ATOM   2513  NH2 ARG A 482       1.525  20.572  45.576  1.00 46.58
ATOM   2514  C   ARG A 482       3.766  24.273  39.897  1.00 34.66
ATOM   2515  O   ARG A 482       4.829  23.733  39.589  1.00 33.66
ATOM   2516  N   SER A 483       2.863  24.626  38.989  1.00 33.18
ATOM   2517  CA  SER A 483       3.096  24.298  37.575  1.00 32.89
ATOM   2518  CB  SER A 483       1.821  24.459  36.720  1.00 32.71
ATOM   2519  OG  SER A 483       1.088  25.621  37.063  1.00 32.91
ATOM   2520  C   SER A 483       4.276  25.103  37.035  1.00 32.05
ATOM   2521  O   SER A 483       5.053  24.625  36.222  1.00 32.02
ATOM   2522  N   THR A 484       4.454  26.307  37.544  1.00 31.83
ATOM   2523  CA  THR A 484       5.609  27.106  37.157  1.00 31.70
ATOM   2524  CB  THR A 484       5.578  28.418  37.898  1.00 32.09
ATOM   2525  OG1 THR A 484       4.345  29.097  37.591  1.00 33.05
ATOM   2526  CG2 THR A 484       6.724  29.332  37.399  1.00 33.47
ATOM   2527  C   THR A 484       6.951  26.435  37.446  1.00 31.08
ATOM   2528  O   THR A 484       7.734  26.236  36.535  1.00 31.35
ATOM   2529  N   TRP A 485       7.236  26.114  38.709  1.00 30.22
ATOM   2530  CA  TRP A 485       8.524  25.522  39.045  1.00 29.70
ATOM   2531  CB  TRP A 485       8.790  25.553  40.561  1.00 29.18
ATOM   2532  CG  TRP A 485       7.959  24.692  41.509  1.00 27.14
ATOM   2533  CD1 TRP A 485       7.017  25.121  42.412  1.00 26.11
ATOM   2534  NE1 TRP A 485       6.560  24.061  43.166  1.00 24.96
ATOM   2535  CE2 TRP A 485       7.232  22.931  42.769  1.00 25.24
ATOM   2536  CD2 TRP A 485       8.124  23.301  41.749  1.00 26.11
ATOM   2537  CE3 TRP A 485       8.919  22.316  41.182  1.00 27.58
ATOM   2538  CZ3 TRP A 485       8.795  21.017  41.633  1.00 26.91
ATOM   2539  CH2 TRP A 485       7.909  20.688  42.629  1.00 25.80
ATOM   2540  CZ2 TRP A 485       7.117  21.626  43.214  1.00 26.26
ATOM   2541  C   TRP A 485       8.694  24.140  38.436  1.00 29.92
ATOM   2542  O   TRP A 485       9.798  23.742  37.988  1.00 29.02
ATOM   2543  N   VAL A 486       7.586  23.417  38.383  1.00 30.94
ATOM   2544  CA  VAL A 486       7.576  22.121  37.725  1.00 31.44
ATOM   2545  CB  VAL A 486       6.182  21.451  37.861  1.00 31.81
ATOM   2546  CG1 VAL A 486       6.033  20.217  36.978  1.00 32.30
ATOM   2547  CG2 VAL A 486       5.942  21.067  39.345  1.00 32.19
ATOM   2548  C   VAL A 486       8.063  22.304  36.276  1.00 31.96
ATOM   2549  O   VAL A 486       9.041  21.685  35.877  1.00 32.23
ATOM   2550  N   LYS A 487       7.451  23.176  35.491  1.00 33.00
ATOM   2551  CA  LYS A 487       7.890  23.303  34.086  1.00 34.04
ATOM   2552  CB  LYS A 487       7.027  24.304  33.300  1.00 34.46
ATOM   2553  CG  LYS A 487       5.631  23.786  33.026  1.00 38.44
ATOM   2554  CD  LYS A 487       4.939  24.513  31.873  1.00 41.63
ATOM   2555  CE  LYS A 487       3.497  24.003  31.669  1.00 43.09
ATOM   2556  NZ  LYS A 487       2.814  24.631  30.475  1.00 44.20
ATOM   2557  C   LYS A 487       9.366  23.693  33.992  1.00 33.65
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FIGURE 4 - 48

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ATOM   2558  O   LYS A 487      10.142  23.093  33.236  1.00 33.37
ATOM   2559  N   ARG A 488       9.749  24.694  34.775  1.00 33.10
ATOM   2560  CA  ARG A 488      11.128  25.144  34.788  1.00 33.28
ATOM   2561  CB  ARG A 488      11.267  26.258  35.834  1.00 33.89
ATOM   2562  CG  ARG A 488      10.494  27.509  35.478  1.00 35.69
ATOM   2563  CD  ARG A 488      11.308  28.457  34.670  1.00 40.80
ATOM   2564  NE  ARG A 488      10.721  28.825  33.408  1.00 43.22
ATOM   2565  CZ  ARG A 488      10.863  30.023  32.844  1.00 50.50
ATOM   2566  NH1 ARG A 488      11.557  30.980  33.463  1.00 53.22
ATOM   2567  NH2 ARG A 488      10.302  30.286  31.663  1.00 49.69
ATOM   2568  C   ARG A 488      12.105  23.980  35.035  1.00 32.57
ATOM   2569  O   ARG A 488      13.098  23.817  34.314  1.00 31.77
ATOM   2570  N   ILE A 489      11.800  23.135  36.020  1.00 32.44
ATOM   2571  CA  ILE A 489      12.698  22.034  36.357  1.00 33.02
ATOM   2572  CB  ILE A 489      12.248  21.349  37.636  1.00 33.78
ATOM   2573  CG1 ILE A 489      12.598  22.231  38.828  1.00 35.97
ATOM   2574  CD1 ILE A 489      12.037  21.725  40.111  1.00 38.45
ATOM   2575  CG2 ILE A 489      12.932  19.987  37.782  1.00 35.06
ATOM   2576  C   ILE A 489      12.813  21.019  35.233  1.00 32.38
ATOM   2577  O   ILE A 489      13.902  20.557  34.924  1.00 32.29
ATOM   2578  N   GLN A 490      11.700  20.649  34.624  1.00 32.67
ATOM   2579  CA  GLN A 490      11.782  19.736  33.481  1.00 32.83
ATOM   2580  CB  GLN A 490      10.423  19.361  32.926  1.00 33.63
ATOM   2581  CG  GLN A 490       9.379  19.081  33.945  1.00 36.49
ATOM   2582  CD  GLN A 490       8.120  18.536  33.302  1.00 40.52
ATOM   2583  OE1 GLN A 490       8.007  18.509  32.063  1.00 44.01
ATOM   2584  NE2 GLN A 490       7.178  18.081  34.126  1.00 42.75
ATOM   2585  C   GLN A 490      12.563  20.385  32.373  1.00 31.71
ATOM   2586  O   GLN A 490      13.483  19.788  31.842  1.00 31.37
ATOM   2587  N   GLU A 491      12.193  21.606  32.008  1.00 31.17
ATOM   2588  CA  GLU A 491      12.952  22.297  30.977  1.00 31.55
ATOM   2589  CB  GLU A 491      12.533  23.767  30.856  1.00 31.84
ATOM   2590  CG  GLU A 491      11.145  23.977  30.273  1.00 33.66
ATOM   2591  CD  GLU A 491      10.616  25.404  30.380  1.00 34.14
ATOM   2592  OE1 GLU A 491      11.377  26.311  30.741  1.00 38.76
ATOM   2593  OE2 GLU A 491       9.415  25.627  30.091  1.00 35.55
ATOM   2594  C   GLU A 491      14.432  22.218  31.325  1.00 31.28
ATOM   2595  O   GLU A 491      15.233  21.773  30.529  1.00 30.82
ATOM   2596  N   ASN A 492      14.796  22.611  32.544  1.00 31.58
ATOM   2597  CA  ASN A 492      16.211  22.681  32.895  1.00 31.49
ATOM   2598  CB  ASN A 492      16.384  23.429  34.202  1.00 31.51
ATOM   2599  CG  ASN A 492      16.002  24.871  34.079  1.00 31.34
ATOM   2600  OD1 ASN A 492      16.038  25.439  32.979  1.00 30.04
ATOM   2601  ND2 ASN A 492      15.615  25.478  35.191  1.00 28.52
ATOM   2602  C   ASN A 492      16.901  21.330  32.940  1.00 31.95
ATOM   2603  O   ASN A 492      18.035  21.180  32.475  1.00 30.72
ATOM   2604  N   LYS A 493      16.231  20.331  33.493  1.00 33.66
ATOM   2605  CA  LYS A 493      16.816  19.000  33.488  1.00 35.28
ATOM   2606  CB  LYS A 493      15.854  17.979  34.057  1.00 35.84
ATOM   2607  CG  LYS A 493      15.366  18.241  35.430  1.00 38.35
ATOM   2608  CD  LYS A 493      14.377  17.144  35.808  1.00 41.86
ATOM   2609  CE  LYS A 493      14.674  16.607  37.178  1.00 44.32
ATOM   2610  NZ  LYS A 493      14.340  15.148  37.312  1.00 45.41
ATOM   2611  C   LYS A 493      17.125  18.584  32.047  1.00 35.88
ATOM   2612  O   LYS A 493      18.220  18.099  31.746  1.00 35.53
ATOM   2613  N   GLN A 494      16.151  18.745  31.154  1.00 37.06
ATOM   2614  CA  GLN A 494      16.390  18.362  29.768  1.00 38.16
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FIGURE 4 - 49

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ATOM   2615  CB  GLN A 494      15.144  18.409  28.880  1.00 38.83
ATOM   2616  CG  GLN A 494      14.583  16.979  28.515  1.00 41.16
ATOM   2617  CD  GLN A 494      15.501  16.159  27.639  1.00 43.66
ATOM   2618  OE1 GLN A 494      15.427  14.930  27.617  1.00 46.63
ATOM   2619  NE2 GLN A 494      16.388  16.843  26.916  1.00 46.86
ATOM   2620  C   GLN A 494      17.507  19.162  29.184  1.00 38.78
ATOM   2621  O   GLN A 494      18.348  18.597  28.499  1.00 39.00
ATOM   2622  N   LYS A 495      17.538  20.467  29.437  1.00 38.91
ATOM   2623  CA  LYS A 495      18.646  21.247  28.914  1.00 39.26
ATOM   2624  CB  LYS A 495      18.519  22.728  29.310  1.00 39.41
ATOM   2625  CG  LYS A 495      17.489  23.508  28.501  1.00 40.11
ATOM   2626  CD  LYS A 495      18.057  24.112  27.238  1.00 40.85
ATOM   2627  CE  LYS A 495      16.944  24.735  26.396  1.00 42.76
ATOM   2628  NZ  LYS A 495      17.468  25.499  25.201  1.00 43.40
ATOM   2629  C   LYS A 495      19.982  20.617  29.369  1.00 39.36
ATOM   2630  O   LYS A 495      20.905  20.495  28.582  1.00 38.95
ATOM   2631  N   TRP A 496      20.085  20.151  30.609  1.00 39.99
ATOM   2632  CA  TRP A 496      21.383  19.637  31.085  1.00 40.38
ATOM   2633  CB  TRP A 496      21.362  19.393  32.590  1.00 39.75
ATOM   2634  CG  TRP A 496      21.552  20.636  33.374  1.00 35.46
ATOM   2635  CD1 TRP A 496      20.664  21.194  34.236  1.00 31.57
ATOM   2636  NE1 TRP A 496      21.181  22.350  34.769  1.00 29.80
ATOM   2637  CE2 TRP A 496      22.426  22.565  34.234  1.00 29.70
ATOM   2638  CD2 TRP A 496      22.685  21.504  33.340  1.00 29.59
ATOM   2639  CE3 TRP A 496      23.908  21.483  32.673  1.00 29.05
ATOM   2640  CZ3 TRP A 496      24.819  22.525  32.891  1.00 28.91
ATOM   2641  CH2 TRP A 496      24.516  23.568  33.769  1.00 27.79
ATOM   2642  CZ2 TRP A 496      23.332  23.599  34.452  1.00 28.08
ATOM   2643  C   TRP A 496      21.828  18.338  30.399  1.00 42.33
ATOM   2644  O   TRP A 496      23.004  18.077  30.195  1.00 42.57
ATOM   2645  N   LYS A 497      20.881  17.516  30.033  1.00 44.17
ATOM   2646  CA  LYS A 497      21.229  16.246  29.405  1.00 46.23
ATOM   2647  CB  LYS A 497      20.023  15.326  29.407  1.00 46.30
ATOM   2648  CG  LYS A 497      18.822  16.040  29.928  1.00 48.76
ATOM   2649  CD  LYS A 497      17.520  15.300  29.726  1.00 51.25
ATOM   2650  CE  LYS A 497      16.522  15.633  30.868  1.00 51.82
ATOM   2651  NZ  LYS A 497      15.307  14.760  30.905  1.00 52.24
ATOM   2652  C   LYS A 497      21.736  16.447  27.989  1.00 46.84
ATOM   2653  O   LYS A 497      22.765  15.894  27.607  1.00 46.94
ATOM   2654  N   GLU A 498      21.017  17.260  27.227  1.00 47.99
ATOM   2655  CA  GLU A 498      21.414  17.576  25.870  1.00 48.87
ATOM   2656  CB  GLU A 498      20.397  18.547  25.242  1.00 48.90
ATOM   2657  CG  GLU A 498      18.966  18.014  25.364  1.00 48.74
ATOM   2658  CD  GLU A 498      17.879  18.960  24.886  1.00 48.46
ATOM   2659  OE1 GLU A 498      18.128  20.178  24.750  1.00 48.43
ATOM   2660  OE2 GLU A 498      16.750  18.465  24.671  1.00 48.93
ATOM   2661  C   GLU A 498      22.832  18.136  25.963  1.00 49.87
ATOM   2662  O   GLU A 498      23.590  18.137  25.002  1.00 50.54
ATOM   2663  N   ARG A 499      23.199  18.583  27.154  1.00 50.93
ATOM   2664  CA  ARG A 499      24.537  19.070  27.392  1.00 51.74
ATOM   2665  CB  ARG A 499      24.517  20.050  28.565  1.00 52.26
ATOM   2666  CG  ARG A 499      25.761  20.900  28.711  1.00 53.97
ATOM   2667  CD  ARG A 499      25.849  21.959  27.662  1.00 57.30
ATOM   2668  NE  ARG A 499      27.046  22.790  27.760  1.00 60.45
ATOM   2669  CZ  ARG A 499      27.325  23.776  26.902  1.00 62.62
ATOM   2670  NH1 ARG A 499      26.488  24.042  25.904  1.00 63.27
ATOM   2671  NH2 ARG A 499      28.431  24.498  27.033  1.00 63.29
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FIGURE 4 - 50

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ATOM   2672  C   ARG A 499      25.431  17.872  27.707  1.00 51.87
ATOM   2673  O   ARG A 499      26.554  17.772  27.228  1.00 52.31
ATOM   2674  N   ALA A 500      24.908  16.935  28.486  1.00 52.06
ATOM   2675  CA  ALA A 500      25.692  15.788  28.934  1.00 52.33
ATOM   2676  CB  ALA A 500      25.017  15.140  30.126  1.00 52.30
ATOM   2677  C   ALA A 500      25.943  14.743  27.849  1.00 52.68
ATOM   2678  O   ALA A 500      26.566  13.711  28.097  1.00 52.53
ATOM   2679  N   ALA A 501      25.429  15.000  26.657  1.00 53.04
ATOM   2680  CA  ALA A 501      25.649  14.116  25.532  1.00 53.13
ATOM   2681  CB  ALA A 501      24.343  13.625  24.985  1.00 53.06
ATOM   2682  C   ALA A 501      26.392  14.938  24.509  1.00 53.37
ATOM   2683  O   ALA A 501      27.113  14.400  23.685  1.00 53.57
ATOM   2684  N   SER A 502      26.224  16.255  24.599  1.00 53.78
ATOM   2685  CA  SER A 502      26.853  17.213  23.703  1.00 54.07
ATOM   2686  CB  SER A 502      28.217  16.711  23.191  1.00 54.23
ATOM   2687  OG  SER A 502      28.186  15.344  22.813  1.00 55.20
ATOM   2688  C   SER A 502      25.895  17.521  22.557  1.00 54.14
ATOM   2689  O   SER A 502      26.299  17.661  21.404  1.00 54.44
ATOM   2690 ZN   ZN  Y 503      22.844  31.188  49.851  1.00 25.94
ATOM   2691 MG   MG  X 504      25.040  29.863  52.708  1.00 19.44
ATOM   2692  O43 PFE Z 999      23.545  24.650  41.301  1.00 26.73
ATOM   2693  C40 PFE Z 999      23.930  24.113  42.346  1.00 26.63
ATOM   2694  C25 PFE Z 999      23.784  24.776  43.651  1.00 27.63
ATOM   2695  C24 PFE Z 999      24.189  24.143  44.768  1.00 26.82
ATOM   2696  N23 PFE Z 999      24.757  22.872  44.692  1.00 25.85
ATOM   2697  C29 PFE Z 999      23.920  25.031  45.890  1.00 25.58
ATOM   2698  C30 PFE Z 999      24.213  24.781  47.347  1.00 23.37
ATOM   2699  C33 PFE Z 999      25.691  25.032  47.478  1.00 26.18
ATOM   2700  C36 PFE Z 999      25.938  26.533  47.562  1.00 26.21
ATOM   2701  N28 PFE Z 999      23.396  26.121  45.399  1.00 26.56
ATOM   2702  N26 PFE Z 999      23.273  25.963  43.972  1.00 26.65
ATOM   2703  N41 PFE Z 999      24.450  22.904  42.359  1.00 27.04
ATOM   2704  C22 PFE Z 999      24.864  22.305  43.507  1.00 28.45
ATOM   2705  C5  PFE Z 999      25.401  20.949  43.400  1.00 27.91
ATOM   2706  C3  PFE Z 999      24.936  19.976  44.264  1.00 27.13
ATOM   2707  C6  PFE Z 999      26.330  20.645  42.429  1.00 29.51
ATOM   2708  C7  PFE Z 999      26.827  19.340  42.303  1.00 29.05
ATOM   2709  C9  PFE Z 999      26.367  18.357  43.182  1.00 29.29
ATOM   2710  C2  PFE Z 999      25.419  18.690  44.149  1.00 28.45
ATOM   2711 BR1  PFE Z 999      24.744  17.388  45.335  1.00 32.55
ATOM   2712  O11 PFE Z 999      26.728  21.663  41.621  1.00 31.56
ATOM   2713  C12 PFE Z 999      27.766  21.361  40.682  1.00 32.70
ATOM   2714  C15 PFE Z 999      28.363  22.665  40.165  1.00 33.18
ATOM   2715  C18 PFE Z 999      27.293  23.275  39.287  1.00 33.12
ATOM   2716  O   HOH W 437      22.530  28.322  46.656  1.00 31.57
ATOM   2717  O   HOH W 446      26.874  29.781  53.799  1.00 31.22
ATOM   2718  O   HOH W 457      28.178  27.393  54.554  1.00 33.06
ATOM   2719  O   HOH W 452      26.133  24.913  53.885  1.00 35.38
ATOM   2720  O   HOH W 519      26.289  25.947  51.374  1.00 39.38
ATOM   2721  O   HOH W 514      23.549  26.864  50.086  1.00 37.34
ATOM   2722  O   HOH W 505      29.017  24.514  52.862  1.00 39.26
ATOM   2723  O   HOH W 516      26.679  21.691  46.682  1.00 43.59
ATOM   2724  O   HOH W 569      28.150  24.604  50.379  1.00 40.39
ATOM   2725  O   HOH Y 504      24.602  27.892  53.431  1.00 26.52
ATOM   2726  O   HOH Y 505      20.355  26.095  51.827  1.00 32.59
ATOM   2727  O   HOH Y 506      30.077  23.348  59.438  1.00 31.88
ATOM   2728  O   HOH Y 507      37.901  31.689  58.399  1.00 32.39
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FIGURE 4 - 51

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ATOM   2729  O   HOH Y 508      17.633  34.299  39.801  1.00 35.42
ATOM   2730  O   HOH Y 509      32.479  37.864  50.769  1.00 32.25
ATOM   2731  O   HOH Y 510      17.022  31.684  42.036  1.00 33.35
ATOM   2732  O   HOH Y 511       4.142  40.668  64.771  1.00 37.84
ATOM   2733  O   HOH Y 512      29.296  37.123  50.985  1.00 30.05
ATOM   2734  O   HOH Y 513      17.626  26.126  62.085  1.00 36.78
ATOM   2735  O   HOH Y 514      30.417  16.874  67.883  1.00 32.62
ATOM   2736  O   HOH Y 515       9.280  24.863  64.634  1.00 39.82
ATOM   2737  O   HOH Y 516      13.360  49.680  64.604  1.00 42.95
ATOM   2738  O   HOH Y 517      38.210  22.021  62.047  1.00 35.38
ATOM   2739  O   HOH Y 518      31.291  42.957  58.871  1.00 43.87
ATOM   2740  O   HOH Y 519      12.847  41.744  35.747  1.00 34.28
ATOM   2741  O   HOH Y 520      31.558  38.422  47.038  1.00 34.77
ATOM   2742  O   HOH Y 521      30.495  19.433  61.463  1.00 40.66
ATOM   2743  O   HOH Y 522      19.284  30.005  44.089  1.00 37.22
ATOM   2744  O   HOH Y 523      37.047  24.549  67.846  1.00 30.29
ATOM   2745  O   HOH Y 524      30.893  38.140  64.488  1.00 45.59
ATOM   2746  O   HOH Y 525      19.375  22.932  54.617  1.00 43.61
ATOM   2747  O   HOH Y 526      20.211  16.428  57.092  1.00 38.64
ATOM   2748  O   HOH Y 527      38.151  29.851  53.283  1.00 43.46
ATOM   2749  O   HOH Y 528      36.997  17.983  62.617  1.00 37.42
ATOM   2750  O   HOH Y 529      33.248  35.411  62.902  1.00 44.27
ATOM   2751  O   HOH Y 530      23.859  29.136  49.563  1.00 57.62
ATOM   2752  O   HOH Y 531      16.010  36.570  39.320  1.00 40.21
ATOM   2753  O   HOH Y 532       1.634  27.065  57.871  1.00 64.49
ATOM   2754  O   HOH Y 533      30.479  21.530  53.146  1.00 34.45
ATOM   2755  O   HOH Y 534       5.832  43.447  72.186  1.00 50.87
ATOM   2756  O   HOH Y 535      35.104  41.800  57.777  1.00 46.23
ATOM   2757  O   HOH Y 536      36.266  34.426  59.316  1.00 61.81
ATOM   2758  O   HOH Y 537      19.819  52.604  34.757  1.00 53.00
ATOM   2759  O   HOH Y 538      10.133  31.689  35.398  1.00 53.74
ATOM   2760  O   HOH Y 539      38.530  35.534  47.671  1.00 65.15
ATOM   2761  O   HOH Y 540      17.494  54.174  32.982  1.00 53.70
ATOM   2762  O   HOH Y 541      31.352  27.905  47.704  1.00 35.56
ATOM   2763  O   HOH Y 542      28.108  19.378  46.743  1.00 59.90
ATOM   2764  O   HOH Y 543      28.762  41.304  46.441  1.00 37.07
ATOM   2765  O   HOH Y 544      27.545  51.877  55.878  1.00 52.00
ATOM   2766  O   HOH Y 545      15.807  15.921  48.963  1.00 46.73
ATOM   2767  O   HOH Y 546      33.709  26.954  46.923  1.00 42.22
ATOM   2768  O   HOH Y 547      17.116  11.664  42.824  1.00 53.12
ATOM   2769  O   HOH Y 548      24.596  51.409  49.795  1.00 50.67
ATOM   2770  O   HOH Y 549      15.391  36.894  41.932  1.00 34.95
ATOM   2771  O   HOH Y 550      13.782  33.190  35.252  1.00 54.16
ATOM   2772  O   HOH Y 551       3.627  51.177  55.677  1.00 67.45
ATOM   2773  O   HOH Y 552      20.997  32.378  43.439  1.00 30.91
ATOM   2774  O   HOH Y 553       0.162  28.357  58.750  1.00 57.59
ATOM   2775  O   HOH Y 554      28.916  43.833  47.130  1.00 39.19
ATOM   2776  O   HOH Y 555      16.067  35.636  70.768  1.00 39.01
ATOM   2777  O   HOH Y 556      12.210  23.514  58.256  1.00 43.55
ATOM   2778  O   HOH Y 557      36.932  35.252  64.715  1.00 45.86
ATOM   2779  O   HOH Y 558      27.898  14.907  42.429  1.00 40.01
ATOM   2780  O   HOH Y 559       8.525  43.858  75.159  1.00 47.55
ATOM   2781  O   HOH Y 560      38.994  30.915  55.773  1.00 58.55
ATOM   2782  O   HOH Y 561      26.250  11.545  30.739  1.00 58.03
ATOM   2783  O   HOH Y 562      22.313  51.989  51.150  1.00 52.01
ATOM   2784  O   HOH Y 563      10.415  12.363  60.171  1.00 58.81
ATOM   2785  O   HOH Y 564       6.756  51.369  55.428  1.00 44.75
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FIGURE 4 - 52

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ATOM   2786  O   HOH Y 565       8.068  51.489  43.583  1.00 84.72
ATOM   2787  O   HOH Y 566      25.907  18.339  70.474  1.00 46.88
ATOM   2788  O   HOH Y 567       2.610  42.354  53.314  1.00 56.80
ATOM   2789  O   HOH Y 568      31.475  18.529  65.677  1.00 46.88
ATOM   2790  O   HOH Y 569      18.751  39.638  72.398  1.00 46.35
ATOM   2791  O   HOH Y 570      23.799  24.285  63.431  1.00 50.64
ATOM   2792  O   HOH Y 571      41.474  30.967  58.845  1.00 46.67
ATOM   2793  O   HOH Y 572      12.758  14.364  41.552  1.00 58.93
ATOM   2794  O   HOH Y 573      32.793  21.189  46.442  1.00 67.03
ATOM   2795  O   HOH Y 574      31.142  40.777  45.034  1.00 40.17
ATOM   2796  O   HOH Y 575      30.428  42.533  61.799  1.00 39.30
ATOM   2797  O   HOH Y 576      25.249  25.866  65.282  1.00 44.23
ATOM   2798  O   HOH Y 577      31.184  44.905  62.938  1.00 45.37
ATOM   2799  O   HOH Y 578      12.415  29.278  61.215  1.00 42.40
ATOM   2800  O   HOH Y 579      27.428  21.985  59.250  1.00 51.88
ATOM   2801  O   HOH Y 580      34.042  18.125  64.961  1.00 42.84
ATOM   2802  O   HOH Y 581      35.177  35.671  66.106  1.00 47.67
ATOM   2803  O   HOH Y 582      20.744  40.046  71.340  1.00 43.61
ATOM   2804  O   HOH Y 583      14.548  14.111  50.051  1.00 60.92
ATOM   2805  O   HOH Y 584      15.386  13.072  47.639  1.00 54.89
ATOM   2806  O   HOH Y 585      13.009  15.852  39.301  1.00 57.80
ATOM   2807  O   HOH Y 586      -4.014  28.291  42.390  1.00 69.02
ATOM   2808  O   HOH Y 587      40.931  28.162  55.474  1.00 48.27
ATOM   2809  O   HOH Y 588      26.237  28.910  50.938  1.00 35.19
ATOM   2810  O   HOH Y 589       4.851  23.056  66.279  1.00 51.23
ATOM   2811  O   HOH Y 590      32.395  35.468  64.658  1.00 49.53
ATOM   2812  O   HOH Y 591      15.979  46.595  69.660  1.00 73.27
ATOM   2813  O   HOH Y 592      28.128  22.004  56.257  1.00 66.05
ATOM   2814  O   HOH Y 593      13.425  27.385  67.817  1.00 39.97
ATOM   2815  O   HOH Y 594      28.816  26.690  49.362  1.00 51.46
ATOM   2816  O   HOH Y 595       8.056  32.798  66.114  1.00 49.75
END
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